



AUSTRALIAN PLANTS SOCIETY SOUTH EAST NSW GROUP

Newsletter No. **100**- May 2014

NEXT MEETING- SATURDAY 7th JUNE 2014 AT 10.30AM

**The 'ins' and 'outs' of plants
With John Knight**

At Eurobodalla Regional Botanic Gardens – 4kms south of Batemans Bay. For details of this event see page 8.

Don't forget SHOW and TELL(bring samples of native plants)
Please bring morning tea, lunch or buy it at the café.

<u>FUTURE MEETINGS</u>		
DATE	GENERAL/COMMITTEE	TIME/LOCATION
Wednesday 6 th August	Committee	Bermagui Community Centre
Saturday 6 th September	General-Bush Tucker	To be decided

PARSONSIA STRAMINEA: a real survivor by Jenny Liney



One of the most widespread climbers on our coastal fringe is *Parsonsia straminea*, or the Common Silkpod. (*Photo of juvenile plant from Wikipedia*) Theoretically, it inhabits Subtropical and Temperate Rainforests, but actually it can be seen in almost any moist forest or woodland situation, often as a remnant in the most degraded of plant communities.

It is described as a woody climber with stems many metres long, attaching itself mostly to trees by what is known as adventitious roots; that is, roots that grow from the climbing stem and hold on to the host, but do not penetrate its bark. Old plants have very thick (9cm diam. have been recorded), fantastically convoluted stems. There used to be some wonderful specimens in the old littoral rainforest behind Loader Beach, just north of Mystery Bay. Maybe they are still there.

Juvenile plants look like another species altogether. These are miniature creepers, with opposite leaves that are 10-15mm long, soft, heart shaped at the base, purple beneath and with prominent veins on the dark green upper surface. Adult leaves are larger, tougher, green and glossy on the upper surface and yellowy green below, and with rather wavy margins. On old plants in exposed situations, the leaves can be very large – to 24cm long and to 8cm wide - and very leathery.

In an adult plant, small, tubular flowers with 5 hairy petals are borne in a bundle near the ends of the branchlets; the flowers can be pink or yellowish, or sometimes white. The fruit is a green pod about 10cm long, tightly packed with hundreds of seeds, each with a fluffy tuft that enables the wind to take it away from the parent plant. Don't pick a pod and put it on your sunny kitchen window sill. When you get up in the morning, your kitchen will be filled with fluffy seeds that will waft gently away as you try to collect them. You will be doing this for quite some time; that is, trying to collect the seeds.

Parsonsia belongs to the family Apocynaceae, most of whose members exude milky or yellowish sap. The family is often called 'dogbane', after the American plant *Apocynum cannabinum* that has the common name 'dogbane'. *Parsonsia* is after James Parsons (1705-1770) a London physician and botanical author. The specific name *straminea* means chaffy, or straw coloured, in Latin, probably referring to the straw coloured hairs on the seeds.

This family contains *Mandevilla*, the Moth Vine *Araujia*, *Trachelospermum*, *Stephanotis* and *Vinca*, as well as some pretty toxic genera, notably *Oleander*, and *Allemanda*, together with natives *Marsdenia*, *Tylophora* and *Hoya*. It is said that the fruit and roots of the Silkpod are edible, but in view of the company that *Parsonsia* keeps, I wouldn't like to try them.

The Silkpod was first named *Lyonsia straminea* by Robert Brown in 1810, from a specimen collected in 1804 from the Hunter and Williams Rivers in New South Wales. Nowadays, after several misapplied names and erroneous identifications, the current name is universally accepted. While *Parsonsia straminea* is a very vigorous climber, it is not quite as overpowering as *Cissus hypoglauca*, thank goodness.

Welcome to new members

by Jenny Johns

It is always a pleasure to welcome new members to our group. This time we welcome Carole Barron from Ungarie and Jillian Peck from Moruya . We hope to see you at some of our activities in the near future.

Summer Survivors

by Leigh Murray

The past summer was really tough on our plants. At home in Queanbeyan, we had many hot days plus two 5 – 6 day runs of 38 – 40 degree maximum temperatures. Temperatures as high as these are unusual for the Canberra area, and these high temperatures were much longer-lasting than the norm. And the soil was powdery dry. At Tuross, during a long period without rain, the temps were much milder, but the winds were something else, and they desiccated many plants almost as much as a heatwave.



Banksias, correas and callistemons have been among the strongest survivors. Banksias didn't blink at Tuross. But metre-high plants of *Banksia integrifolia*, (Photo by Jackie Miles, copied with permission from w/s <http://thebegavalley.org.au/plants.html>) growing slowly in awful spots at home (fully exposed to the western sun on a bare, rocky ridge), were badly burnt. Yet, amazingly, with only one or two leaves left unscorched, they're on the way to recovery, helped by autumn rain. It's a lovely sight to see new growth amongst a mass of dead leaves. *B. integrifolia*, the

Coast Banksia, does of course do brilliantly at Tuross, but it's been a surprising success at Queanbeyan, where apart from a magnificent *B. spinulosa*, it's the banksia that copes best with our conditions, even beating *B. marginata* for toughness there.

Callistemons at home (a wide variety: mainly cultivars of *C. citrinus* and *C. viminalis*, plus *C. pinifolius*) actually appeared to revel in the heat, putting on new growth *during* the heatwave (everything else looked stunned), and those at Tuross (*C. citrinus* cultivars mainly, plus Council-planted *C. 'Dawson River'*) didn't blink during the long, windy dry period. A couple of the correas at home had some burnt foliage, and others drooped strongly but they all recovered well, and many are flowering now as I write this in early April (eg several forms of *Correa glabra*, plus *C. decumbens*, *C. pulchella* and *C. reflexa*). *Correa glabra* is a wonderfully hardy shrub for inland conditions but doesn't do particularly well at Tuross, whereas *C. baeuerlenii* thrives in both places. Croweas (eg the gorgeous *C. 'Poorinda Ecstasy'*) toughed it out at home; they didn't even droop. (I haven't tried any at Tuross since several died in our early years – I've found them to be susceptible to root rot, a constant threat there.)

Tufted plants such as *Dianella revoluta*, *D. tasmanica* and *Lomandra longifolia* hardly blinked – their foliage tended to go yellowish in the heatwave, but it soon greened up again once we had rain, and wind doesn't seem to bother them. Most climbers (such as *Clematis aristata* and *C. microphylla*, *Pandorea pandorana* and *Eustrephus latifolius*) did well in both gardens. But an *Hibbertia scandens* and a couple of *Cissus antarctica* that had been growing happily on a northern fence are only just beginning to recover from those drying winds at Tuross, which also burnt foliage on some Lilly pillies (eg *Syzygium smithii*). The *S. smithii* seem pretty tough, surviving for us at Tuross in some of the harshest spots (wind-exposed and/or under Norfolk Island Pines). (I haven't tried growing them in Queanbeyan, but an *Elaeocarpus reticulatus* is doing nicely there, so they too might do well under eucalypt cover.)

Hit hard were some of our grevilleas. Quite a few became distressed by the heat (although the wind didn't bother them). Elderly grevilleas (20 years plus) such as *Grevillea 'Bronze Rambler'* and *G. 'Clearview David'* decided they'd had enough. *G. 'Poorinda Royal Mantle'* fought hard against the heat: a couple of smaller plants succumbed, but the others are shooting back from burnt foliage.

I did what I could to shade sun-exposed plants at home (by mulching and by draping smaller plants with bits of shade cloth or leafy branches), and this did seem to help. The effects of the

drying winds at Tuross came as such a surprise given the mild temps, that all I could do was water the plants belatedly once I found them in a distressed state. To our delight, the autumn rain in both places has led to a resurgence of growth, especially in Queanbeyan where indigenous plants such as Cassinias are popping up in areas that were previously bare.

March Meeting at Wandella with David Charlton

by Mog Bremner, Photos from Sue Sullivan

Using Native Plants in the Landscape

The March APS SE activity was held at David Charlton's nursery Provincial Plants and Landscapes near Wandella, about 30 minutes drive from Cobargo. He started the nursery to supply his landscaping business, which is mainly in and around Canberra. Despite the apparent inconvenience of running a business so far off the beaten track, it is thriving.

When we arrived, we found an intricate collection of covered nurseries and buildings, many of them mud-brick. Water is collected from every available surface and stored; solar power is produced on site; David provides transport from Cobargo for the workers.

John Knight enlightened the group about the *Cryptandra* family (see page 5) and Sue Sullivan told us about her experience propagating and using kangaroo grass (*Themenda triandra*). She has found it one of the very few things that can hold its own against spreading kikuyu.



David Charlton



One of David's greenhouse tunnels

David then told us about how he started the business, how it works and what his future plans are. Although his own passion is for native plants, particularly grasses, most of the time he is working to plans provided by a landscape architect and these will very often include introduced species such as agapanthus. But he is pragmatic about this: the landscape business provides an income so that he can pursue the things that really matter to him. He has recently bought land in Brogo and plans to run it as an experimental farm, trialling various methods of environmentally sound farming. He hopes to produce robust data supporting the use of these practices that will help them spread into more mainstream farming circles.

Then we went on a tour of the nursery. The drizzle cleared, and the sun even came out. For the uninitiated, it might seem a confusing tangle of interlocking structures, but it is clear that David knows exactly what he is doing with every square metre and coordinates it to maximize its potential.

It was an enjoyable and informative day, and our thanks to David for spending the time and effort on us. We had an excellent turnout for this meeting: 27 people came, including some new faces. Did the native grasses attract them, or do we have a posse of secret 4WD enthusiasts?

Adventures of Cryptandra

by John Knight

I have always been fascinated by the names science applies to plants. When honouring a person, it is interesting to delve into the history of that person to see why such an honour should have been bestowed. The internet allows such investigation with ease, whereas previously long hours were spent at major libraries conducting “research”. But to me it is more interesting when scientists have used characters of a plant in naming, as one can then see what the scientist saw, and hopefully use this stored information to remember the plant when next coming across it in the bush, or in a garden.

Whilst it is nice to know that Sir Joseph Banks was honoured with the naming of Banksia, it is much more stimulating to find out that Cryptandra, from Greek *kryptos*, hidden and *andros*, a man, has hidden its anthers within cupped petals. This is tangible evidence that we can see when taking a close look at the flowers with our 10x lens.

Within the confusing Family Rhamnaceae, the great Botanist Robert Brown is credited with sorting through difficult floral structure of the species collected in Australia in the early years of the nineteenth century. As an appendix of Matthew Flinders’ “A Voyage to Terra Australis” Robert Brown published his “General remarks, geographical and systematical, on the botany of Terra Australis” (1814). In this publication he gave a detailed definition of the Family Rhamnaceae, describing all the important features which placed the various plants within this group. His description was so accurately prescriptive that it is still valid today.

However as with all good stories, there is a twist. There is no perfect line of evolution that we can follow using morphological clues to split the members of Rhamnaceae into Genera, so scientist have turned to DNA sampling to work through questions that have baffled for many years. These Genera have continually confused botanists, and some species have variously moved from one to another. Indeed, even Antoine-Laurent de Jussieu, coining “Rhamni” in his “Genera plantarum” (1789), questioned whether he had placed plants in their correct genus. Siegfried Reisseck first described *Stenanthemum* in 1858, separating some species from *Cryptandra* and *Spyridium*. George Bentham, p410 Vol 1, *Flora Australiensis*, (1863) notes that “most of the genera, even the most natural ones, are difficult to characterize. The differences in their flowers and fruits are very trifling”, but he decided to maintain the genera as proposed by Reisseck. But F.von Mueller (1883) found the differences ‘so trifling’ that he abandoned *Stenanthemum*, *Spyridium* and *Trymalium*, reducing them to synonymy with *Cryptandra*. In subsequent years various botanists tinkered, but no definitive grouping was determined.

Prominent botanist K.R.Thiele, (Kevin) currently curator of the Western Australian Herbarium, is well recognized for his research into Proteaceae, and with Pauline Ladiges produced a paper on the taxonomic arrangement of Banksia based on cladistic analysis. Although controversial, this work resulted in the transfer of Dryandra to Banksia, a decision still hotly debated. But Kevin is also charged with overseeing the treatment of Rhamnaceae for the Flora of Australia series, and for this work he has produced a succinct set of key points to establish the correct placement of Cryptandra, Stenanthemum and Spyridium.

Using morphological and cladistic analysis, and sequence data of Dr. Juergen Kellermann (currently Senior Botanist, State Herbarium South Australia) and others, he has established that each of the genera is a natural one, and also, that some species within the group are misplaced and need to be transferred to new genera. The work of botany is indeed detailed and baffling.

For **Cryptandra**, a genus of about 40 species growing naturally from south east Q'land, across southern Australia to south west Western Australia, identifying features include: leaves that are revolute-terete with stipules that surround the base of the leaf petiole, inflorescence of single flowers with imbricate (overlapping) bracts around the base of the flower, and a floral tube that may be short or long, but distinct.

At the base of the floral tube is a pentagonal shaped disk covered with short woolly hairs.

For **Stenanthemum**, (from the Greek stenos, meaning narrow, and anthemon, meaning flower, literally narrow-flowered), a genus of about 30 species, 23 of which occur only in south west Western Australia, identifying features include:

leaves which are usually broad and often folded, at least at the tip, with stipules that are free or joined behind the petiole. Inflorescence is a dense cauliflower-like head of small white flowers surrounded by small or large floral bracts.

The floral tube may be short or long. At the base of the floral tube is a glabrous disk, shaped such that the staminal filaments appear to join the disk on extended, albeit short, arms.

For **Spyridium**, (from the Greek spyridion, meaning a little basket, referring to specialized leafy bracts that surround the flowers of many species), a genus of about 40 species found through southern temperate Australia, identifying features include: leaves which are usually broad and rarely folded, with stipules that are free or joined behind the petiole.

Inflorescence is a cauliflower shaped head similar to *Stenanthemum* but usually looser, and surrounded by large floral bracts. The floral tube is very small. At the base of the floral tube is a glabrous disk circular in outline but indented where the staminal filaments join.



Spyridium scortechinii up close.

For each of these 3 Genera, the fruiting structure is distinctly different, and consistent, and is another key to determining where a particular species sits.

The differences might appear minor, but are consistent within the now accepted groupings, and importantly for us, are morphologically discernable. DNA sequencing has confirmed the placement of various species within the recommended Genera.

My aim in researching this was to verify the placement of the much traveled *Stenanthemum scortechinii*, as described by Mueller. It has been moved back to *Cryptandra*, then again to *Stenanthemum*, and finally arrived at its correct home as *Spyridium scortechinii*, as described in *Telopea* 10(4) 2004, p823-829. The paper titled ‘*Spyridium burragorang* (Rhamnaceae), a new species from New South Wales, with new combinations for *Spyridium buxifolium* and *Spyridium scortechinii*’ by Kevin Thiele, and Judy West, then at the Australian National Herbarium in Canberra, details the problems of determining the placement of plants within current Genera, and corrects anomalies. So ends the saga.

Maybe when next confronted with an unpopular name change, one should spare a thought for the intense and detailed studies undertaken by botanists before such apparently unnecessary changes are published.

The Tribe Pomaderreae within the Family Rhamnaceae contains many desirable plants. Although not many are grown these days, early catalogues list a range of Pomaderris, *Cryptandra* and *Spyridium*. As we find the changing weather patterns cause longer drier spells, it might be that a resurgence of the smaller plants of this group occurs, again finding favour as garden subjects.

Plants that we could grow include:

Cryptandra amara, Bitter *Cryptandra*, growing naturally in open heathy country through the eastern states, is a slow growing dwarf or small shrub to 0.5m. It flowers from autumn through spring, and is happy in semi shade or full sun. Like many in this group, *C. amara* tolerates dryness once established, and is a great filler in open rockeries.

Cryptandra ericoides, Heathy *Cryptandra*, from southern Q’land to south of Sydney on rocky heaths, is similar, or smaller than *C. amara*. Flowers are borne through autumn and winter. This was once a popular garden plant, preferring sun and good drainage.

Cryptandra propinqua, Silky *Cryptandra*, growing naturally on drier heathy country from Q’land through NSW, Vic and into SA., is a compact, wiry, dwarf shrub to 40cm which flowers through winter and spring. It is a drought tolerant, showy, heavy flowerer, and is a great infill for rockeries in sun or semi shade

Spyridium scortechinii, has a number of common names including Ball *Cryptandra*, Corroboree Flower and Cotton Bush, alluding to the very shaggy flower heads, is found in SE Q’land and eastern NSW, and is a prostrate to low mounding shrub, depending on the form. On the south coast of NSW, the best collection has been from a roadside cutting at Bodalla, on the Potato Point Rd. This form stays flat and spreads about 1m. There are forms described as growing to 2m high, but I have rarely come across any taller than about 0.5m The plant is very accommodating in the garden, easily maintained and long flowering, from autumn to early summer. Once established the plants are very happy to survive on little rain, and maintain a compact habit.

Spyridium cinereum, Tiny *Spyridium* is a compact dwarf shrub to 0.5m, with attractive grey foliage. It occurs in coastal heaths in the south east, Nadgee to Mallacoota, and also in the Grampians. During spring and summer the plant is covered with masses of white flowers. In cultivation it does best in semi shade, and needs some water until well established.

Spyridium parvifolium, Dusty Miller in reference to the roundish dull grey green foliage, is possibly the most widely grown of this group, especially the dwarf prostrate forms from East Gippsland. The plants is found from SE NSW, through Vic to SE SA and in Tas. Generally a low spreading plant, some forms of wetter forests around Melbourne can be up to 1.5m high. An interesting feature is the whitish floral bracts below the numerous flowerheads from late winter to early summer. A very adaptable plant which makes a lovely backdrop for smaller plants, especially in semi shade, where its soft greyish foliage is seen at its best.

Rarely do we see these plants in nurseries today, so we might need to grow our own. Propagation of *Cryptandra* is a somewhat slow process with cuttings of firm new growth often taking 6 months to root. Generally tip cuttings taken from February to April will be reliable. Flower buds should be removed. With *Spyridium*, cuttings are best taken of just firm new growth, taken from November to January do best, and using growth from plants growing in semi shade has proved most successful in my experience.

References:

- Brown, R. General remarks, geographical and systematical, on the botany of Terra Australis, pp533-612 in Matthew Flinders, A voyage to Terra Australis, Vol 2 (1814)
- Bentham, G. and Mueller, F. Flora Australiensis A description of plants of the Australian territory, Vol 1, Rhamnaceae, pp409-445 (1863)
- Thiele, K. and West, J. *Spyridium burragorang* (Rhamnaceae), a new species from New South Wales, with new combinations for *Spyridium buxifolium* and *Spyridium scortechinii*, *Telopea* 10 (4), pp823-829
- Elliot, R. and Jones, D. *Encyclopaedia of Australian Plants suitable for cultivation*, Vols 3, 9.

Next Meeting June 2014

by John Knight

The 'ins' and 'outs' of plants

As members of APS SE Group, it can be assumed that we all grow at least some Australian plants. When I first joined APS Vic over 40 years ago, a big deal was made of knowing about the plants being grown: not only the requirements for successful growing, but also a bit about the taxonomy of the plants as well.

Over the years it seems to me that the importance of names has waned, and commercially at least most plants now have fancy cultivar names with little relevance to the plant. It's like nicknames for people, we accept them, but are we happy to be addressed by all and sundry by nicknames? Of course not!

So at this meeting in the ERBG we will look at a range of flowering plants and discuss the validity or otherwise of why they are so named.

Please bring along flowering specimens that we can discuss: not just a couple of flowers but enough to share amongst members so we can all be looking at the same plant. We will go into as much or as little detail as the members like.

Hope to see everyone come along and delve enthusiastically into this subject. It's often judged as too hard – but you will find out how easy and rewarding it can be.

Don't forget that the cafe at ERBG will be open should you wish to buy lunch.

The good news is...

The fee increase announced in the December 2013 Newsletter has not eventuated so fees will remain at 2013 rates. If you paid the additional amount the Treasurer or Membership Officer will contact you soon. For current fees see the bottom of this page.

100th issue of APS SE Newsletter

Did you notice this is the 100th newsletter published by our group? Congratulations to everyone who has contributed over the years, especially to Jennifer Liney and Leigh Murray for their regular contributions and to Bob Ross for bringing our newsletter into the modern era.

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