

BUDAWANGIA*

AN E-NEWSLETTER FOR ALL THOSE INTERESTED IN THE NATIVE PLANTS OF THE NSW SOUTH COAST

Contact: Dr Kevin Mills – kevinmillskma@gmail.com

No. 21 - December 2013

Aims: To connect those interested in the native flora of the NSW South Coast, to share up to date information on the flora of the region and to broaden the appreciation of the region's native plants.

Editorial

The Coachwood trees, mentioned in the last newsletter, started to colour up early in the month. By the end of the month, the rainforest patches on the upper escarpment slopes turned pink. It is worth visiting an escarpment lookout to view this spectacular flowering, which does not occur every year. A piece on Coachwood appears later in the newsletter. The NSW Christmas Bush *Ceratopetalum gummiferum* is also flowering well this year (see photograph below). This brings me to wish all of you a happy and safe Christmas.



This edition features a piece on two species of paper daisy, often called Everlastings, which are common in the region. A new species of mint bush is revealed and the not-so-mysterious mystery plant is identified. Other pieces in this Christmas bumper issue include a book review, a Reader's request regarding 'fire retardant' plants, a note on a particularly nasty exotic creeper that has turned up in Jamberoo Valley and some feedback on Myrtle Rust.

Photograph: NSW Christmas Bush
Ceratopetalum gummiferum

This month we have a joke, rather than a quote:

A botanist and a mammalogist turn up at the Pearly Gates together. They are each asked 'what would you like people to say about you when viewing you in your casket?' The botanist quickly says, 'she was a world authority in her chosen field of botany and has greatly progressed the study of botany'. After some consideration, the mammalogist says 'he just moved.'

Kevin Mills, Jamberoo, NSW.

Tel. 02 4236 0620

* *Budawangia* is a monotypic, endemic genus restricted to the Budawang Range on the western edge of the South Coast region. The genus was named by Telford in 1992; the species *Budawangia gnidioides* (Ericaceae) was previously *Rupicola gnidioides*.

Everlastings or Paper Daisies

The common names Everlastings or Paper Daisies are given to plants in the Asteraceae that have papery flowers that last for a long time in a dried out condition. The species are in several different genera, such as *Xerochrysum* (previously *Bracteatum*), *Helipterum* and *Helichrysum*. Two local species are featured below; both are common and widespread in the region.



Xerochrysum bracteatum grows to about one metre tall, often on disturbed soil such as road sides.



The flowers of *X. bracteatum*



Flowers of *Helichrysum elatum*



H. elatum is a common forest species.

Mystery Weed

The mystery weed from last month is *Coprosma repens* (Rubiaceae), known as Mirror Plant because of its very shiny leaves. It has been introduced from New Zealand, where most species in the genus *Coprosma* can be found. Male and female flowers are produced on different plants. Fruit is a small orange drupe. Plants are fairly common along our coast, usually growing on cliffs; in NSW it occurs south from about Sydney. The local native *Coprosma quadrifida* has small leaves and spiky branches and is found in and around rainforest and moist eucalypt forest on the highlands. Several people quickly identified the species, including David Pomery, Bill Barnetson and Marcus Burgess.



Female flowers of *Coprosma repens*.



Male flowers of *Coprosma repens*.

Readers request - 'Fire retardant' plants

Adrienne Grant (Batemans Bay) has suggested we look at 'fire retardant' plants. What she means by this are those plants and plant communities that tend to resist fires; i.e. do not burn as readily as, say, heath or eucalypt forest. Rainforest, some wetlands and other types of vegetation can be said to be fire resistant to some extent. Under low to moderate fire intensity, such vegetation can stop or modify fire behaviour. Under high to extreme fires, vegetation type is almost irrelevant to fire spread.

While rainforest can obviously burn under the right conditions, in many instances this forest, usually in combination with its topographic position, will resist fire and can halt fire spread. This is why patches of rainforest survive in otherwise very fire prone country, such as the sandstone gorge country to the west of Nowra, which is also under a quite low rainfall for rainforest development. In these circumstances, topographic position is critical to the survival of the rainforest. Deep gullies, escarpments and a process known as block gliding, where huge parts of the sandstone escarpment move forward and create gaps that do not readily get burnt, are important in such circumstances.

Certain plants are said to be fire retardant or fire resistant and are recommended for plantings around houses on fire prone sites. Lists of such plants are fairly widely available. That's my bit; it is now up to readers to respond as they wish – happy to receive comments, observations or photos.

A new species of Mint Bush for the Region

The genus *Prostanthera* (Lamiaceae) is represented in our region by about 15 species. These species range from small trees to shrubs and some are quite rare. In late 2012, a new species, *Prostanthera tallowa*, was named from the Shoalhaven River gorge. As the name suggests, the species was named after Tallowa Dam on the Shoalhaven River at its junction with the Kangaroo River. At that time, late 2012, the species was only known from the *type* locality near Tallowa Dam Road. Surveys in 2013 by Kevin Mills located more populations well away from the original location and additional populations in the Tallowa Dam area. The total population now stands at over 2,400 plants, up from about 50 plants recorded in the paper that described the species in 2012. If you should find a *Prostanthera* in the Shoalhaven, please pass on your observations (and specimen) as it may be this still very rare species. I have provided a few photographs below to help identify this species. The formal description of the species can be found in *Telopea* 14: 5-8 (2012).



Book Reader's Choice

Jane Lemann (Wingecarribee) writes: "I am currently reading "White Beech. The Rainforest Years" by Germaine Greer (Bloomsbury, 2014: \$40.00). This is newly released and tells the story of her rainforest rehabilitation project in the Numinbah Valley between Lamington and Springbrook National Parks. I am enjoying it very much as, of course, I can relate to the weed works. Her background research on the various rainforest species I think would touch base with anyone interested in the escarpment vegetation along the coast. I think it is an important book as we need this sort of 'nature' writing to reinforce the converted and possibly inspire new interest so it could be worth giving it a plug. I'm sure you will know a lot of the people she refers to for help and information."

New Weed of National Significance: Cat's Claw Creeper in the Illawarra

One of the most destructive and invasive vines introduced into Australia was recently found in remnant rainforest on private property at Jamberoo. Another infestation, yet to be verified, has also been reported at Mount Kembla. Cat's Claw Creeper *Dolichandra unguis-cati* (syn. *Macfadyena unguis-cati*), family Bignoniaceae, is a vigorous South American vine, introduced to Australia as a garden ornamental. It is easily identified by its opposite leaves, each with two leaflets, and the three-clawed tendril growing from each leaf stalk. The name "Cat's Claw" derives from this clawed tendril, which the plant uses to climb. Cat's Claw Creeper is one of 12 weeds recently added to the list of Weeds of National Significance (WoNS); it is recommended for declaration as a Class 2 noxious weed in NSW under *Weed Control Order 2013*. Cat's Claw Creeper is a major threat to several endangered ecological communities and a pest of forestry, urban areas and infrastructure corridors. It is having a major impact along coastal and hinterland streams in southeast Queensland and northeast NSW. The Jamberoo infestation is localised; even so this vine can have a devastating impact on creeks and rainforest, especially in smaller, more vulnerable remnants.

The large climbing stems reach to the top of the rainforest canopy where, then through a combination of weight and shading, can cause the eventual death of the largest canopy trees, opening up the canopy for light-loving weeds. This can lead to further degradation in the structure and composition of the native plant community. As an example of this, at Wingham Brush in northern NSW, an infested tree with a girth measuring 1.5 m had 560 individual vines climbing on it. Some of the larger vines had stem diameters of 15 cm. This tree was eventually killed by the Cat's Claw Creeper infestation.

David Pomery, Illawarra District Weeds Officer.



Cat's Claw Creeper is distinguished by showy yellow flowers, winged seeds 2 cm - 4 cm thick, a 15 cm - 45 cm long capsule, terminal leaflets modified into a three-clawed tendril and swollen underground tubers. The vine is a woody climber with stems extending for 20 m or more. Leaves comprise two egg-shaped to elliptic leaflets. The plant flowers in spring. The root system of the plant is quite extensive and produces a large tuber at about 50 cm intervals along the lateral roots. Each tuber produces individual climbing runners; these runners can grow as a ground cover along the forest floor, forming a thick carpet of stems and leaves that chokes out small plants and smothers germination.

Left: Flowers of Cat's Claw Creeper, snatched from a DPI (NSW) brochure.

Spelling error - Issue No. 20

Gary Leonard, with great amusement, was quick to point out the following error on page 4 of the last newsletter: 'an almost prostate form of *Personia oxycoccoides*'; obviously the word should be prostrate.

More on Myrtle Rust

Some responses on the note on Myrtle Rust in the November 2013 issue.

In early 2011 I observed Myrtle Rust on many *Backhousia citriodora* in Ballina, northern NSW. The plants were in a plantation and some individuals were badly affected whereas plants with a few metres were unaffected. Since that time all of these trees have put on unaffected new growth. The fungus is probably still within the trees but they now show no or few signs of leaf deformation. By August that year the fungus

had spread (or reported) to wild growing *Rhodamnia rubescens* in Wollongong and mature trees were dying or dead. Again the degree of leaf deformation varied from plant to plant. I also received reports of myrtle rust at Tomerong, Nowra at roughly the same time. In September 2011 I observed spores of myrtle rust at my place at Tapitallee, north of Nowra. By May 2012 all my cultivated *Gossia acmenoides* had myrtle rust and none had new growth that hardened off. The fungus by that time had also spread to north Queensland. This exotic fungus is now firmly established along the east coast of Australia and our myrtles will just have to evolve with the pathogen.

Garry Daly, Nowra

A couple of years ago we had a case, of what I assumed was Myrtle Rust, on a young *Austromyrtus* (Aurora) growing on the south side of our place. I cut the whole plant back severely and bagged the effected sections. Seemed to be primarily the new growth that was effected. It has grown well since and does not appear to have myrtle rust.

Mike Clear, Cudmirrah.

I visited the site at Tallowa Dam (mentioned in the last newsletter) late in the month and found that the infected plant was healthy, with no sign of Myrtle Rust at all. The plant had also produced fruit to maturity, although I cannot vouch for its viability.

Kevin Mills, Jamberoo.

Those wanting to pursue this issue could start with the document *Management Plan for Myrtle Rust on the National Parks Estate* by NPWS (2011), which is available online. The following extract is from this publication:

“Myrtle rust is a plant disease caused by the exotic fungus *Uredo rangelii*. It was first detected in Australia on 23 April 2010 on the NSW Central Coast. It has established in coastal NSW from the Clyde River north into Queensland. Myrtle rust is likely to spread rapidly to the extent of its biological range as the spores are dispersed readily by wind. Eradication is unfeasible.”

Flowering of the Coachwoods

As mentioned above, the Coachwood *Ceratopetalum apetalum* trees are flowering magnificently this year. It is the calyces that colour pink, rather than the petals as in most flowers. Coachwood is the common rainforest tree on the upper escarpment slopes, mostly on the shales of the Narrabeen Group, just below the Hawkesbury Sandstone cliffs. This tree dominates the warm temperate rainforest in our region and is much less common on volcanic soils.



Left:

Billions of small Coachwood flowers are turning the escarpments from Cambewarra to Helensburgh a shade of pink. The calyx forms a small ‘propeller’ that aids in wind dispersal (see photograph).

Below:

Coachwood trees flowering below Jamberoo Lookout on 22 December 2013. The colour should be much brighter by early January.



Other Members of the Coachwood family Cunoniaceae

Five species in the family Cunoniaceae occur naturally in our region; these are mostly found growing in or near rainforest or in gullies on the sandstone soils. The species are: Gum Vine *Aphanopetalum resinosum*; Callicoma *Callicoma serratifolia*; Coachwood *Ceratopetalum apetalum*; Christmas Bush *Ceratopetalum gummiferum*; and Crabapple *Schizomeria ovata*.



The tree Crabapple *Schizomeria ovata*.



Gum Vine *Aphanopetalum resinosum*.