

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. 48 - March 2016

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

With continuing warmer oceans around Australia, *El Nino* has deepened during the last two months, and our dry conditions continued into mid-March when some reasonable rain finally came. We can only be thankful that the severe bushfires this season in other states have not occurred in our part of the world.

Blackberry bushes were introduced for their fruit but now are regarded as noxious weeds. Many of us would remember going out in summer and collecting the fruit from thickets of Blackberry in paddocks and escarpment clearings. Native raspberries are closely related to the Blackberry, and there are four species in the region, although their fruits are not as an attractive culinary treat as the introduction. The native raspberries are the subject of the first piece in this newsletter, followed by items on a plant of the month, an eatable thistle, slime mould and a new weed for the region. The answers to last month's challenge to identify rainforest tree bark are also provided as is a photo of a common local frog from a reader.

Below is another note on a common Australian genus.

Grevillea - named in 1809 after the English politician and founder of the London Horticultural Society Charles Francis Greville. This large genus contains about 362 species, occurring in Australia, New Guinea, New Caledonia and Indonesia. The *Grevilleas* (Proteaceae) are mostly shrubs, but range from small prostrate plants to tall trees. Australia contains about 357 endemic species. The showy flowers, often in large inflorescences, are great bird and insect attractants in home gardens, while the larger species produce useful timber. Many hybrids have been produced for horticultural use. The well known rainforest species *Grevillea robusta*, which produces a beautiful timber, appeared recently in *Budawangia* No. 47.

A reminder to readers that a free plant identification service is available by sending a photograph, scan or specimen of the plant to me; contact information is shown on this page.

I would be pleased to receive appropriate articles, however small, on interesting observations, new discoveries, plant name changes, etc., up to two A4 pages, including some photographs. Deadline is one week before the end of the calendar month.

Kevin Mills, Jamberoo, NSW.

Tel. 02 4236 0620

All photographs ©Kevin Mills 2016, unless otherwise stated.

* *Budawangia* was a monotypic, endemic genus named in 1992 and restricted to the Budawang Range on the western edge of the South Coast region. This genus was discarded in September 2015 with the publication of a review of *Epacris*. The newsletter retains the name in memory of this once endemic genus and the mountains bearing the name.

Native Raspberries

Four species of native raspberry *Rubus* sp. (Rosaceae) occur on the NSW South Coast. The genus name comes from the Latin for the bramble and is probably based on *ruber* for red, referring to the colour of the fruit. The local species are readily identified by leaf shape. While all are edible, *R. rosifolius* produces the largest fruit. These prickly stemmed plants grow best out in the open; all except *R. parvifolius* can be found in moist forests and on the edges of rainforest. *R. parvifolius* has the smallest leaves of them all and grows mostly in drier places, including woodland. These plants are seldom found growing on sandstone soils. The largest species is *R. nebulosus* (syn. *R. moorei* or *R. sp. aff. moorei* of most books), which grows as a large vine climbing into the canopy of rainforest.



Rubus rosifolius (leaf and fruit).



Rubus parvifolius (leaf and buds)



Rubus moluccanus (leaves)



Rubus nebulosus (leaf)

Rainforest Tree Bark

The answers to last month's rainforest tree bark challenge are:

No. 1 - Coachwood *Ceratopetlum apetalum*; No. 2 - Churnwood *Citronella moorei*; No. 3 - Lilly Pilly *Syzygium smithii*; No. 4 - Bolly Gum *Litsea reticulata*; No. 5 - Red Cedar *Toona ciliata*; No. 6 - Sassafras *Doryphora sassafras*.

Marcus Burgees and Geoff & Ann Long identified five of the six correctly, while Les Mitchell gets 5.5 marks for having a bet each way on number 2.

Plant of the Month – *Atriplex cinerea*

The Grey Saltbush *Atriplex cinerea* (Chenopodiaceae) grows along the southern coast of NSW and in other southern states. It occurs as far north as The Five Islands but is rather uncommon further north than Murramarang, south of which it becomes quite common. This is a shrub to about 1.5 metres tall that grows exclusively on coastal sandy beaches. The greyish foliage is distinctive and it is one of the very few shrubs growing on the lower beach. The species may appear and disappear from a beach in response to erosion. The genus *Atriplex* comes from the Greek *atri* – dark and *plexus* – network or tangled, this refers to a plant in Europe; *cinerea* means ash-grey.



Above. Flowering stem of *A. cinerea*. Below. *A. cinerea* growing just above high tide mark on Honeysuckle Beach, Murramarang National Park.



Thistle with that?

The prospect of eating a thistle would put most people off. However, as no doubt some readers already know, a popular garden vegetable is indeed a thistle. The Globe Artichoke *Cynara cardunculus* var. *scolymus* (Asteraceae) is a plant from the Mediterranean region that has been used for centuries for its culinary attributes. The edible portion of the plant consists of the buds before the flowers open. The budding artichoke inflorescence is a cluster of many small flowers, together with surrounding bracts. Once the flowers have come out, the head is inedible. The 1.5 to 2 metre high plant is rather attractive, with large silver-green leaves and large purple flower heads and is a useful addition to the flower garden, even if you do not want to eat it.



Left. The tall, prickly plant of Globe Artichoke.

Above. The flower head of Globe Artichoke, at this stage too late to be eaten.

Slime moulds...

Whatever are slime moulds?! Knowing nothing, I borrowed a book, *Where the slime mould creeps, the fascinating world of myxomycetes*, by Sarah Lloyd. This readable little Tasmanian publication is directed towards curious amateurs rather than a weighty reference for scientists, so was just the right place to find the essentials. Slime moulds are a fascinating group bearing some characteristics of fungi (they reproduce by spores) and at another stage of development they share the characteristics of animals as they move and feed. They are so distinct that they have been placed in a scientific group of their own, the myxomycetes. Spore dispersal for reproduction in mature specimens is set in motion by the action of rain drops and the ‘babies’ develop from one cell amoeba-like growths. Fruiting bodies are the bright coloured and very visible parts which catch attention. An actively feeding slime mould moves over the surface of decaying organic matter and leaves a trail of excreta. It then actively avoids crossing this trail in order to avoid ingesting previously excreted matter. Their tendency to suddenly appear on rotting logs and stumps gives slime moulds a magical reputation. In Tasmania there is a persistent rumour that they are ‘snake poo’ and in China they are known as ‘Kwei hi’ which translates as ‘demon droppings’. Numerous invertebrates feed on them and in Mexico they are fried and eaten by indigenous people who call them ‘caca da luna’. Moon shit!

The most likely forests for observing slime moulds are those with moisture retaining but not water-logged soils. Rotting vegetation, in particular piles of rotting leaves, are productive growing areas. Windy or ‘tidied-up’ areas are much less hospitable. There are three distinct types of slime mould. These are most likely to strike chord with you if I repeat to you Sarah Lloyd’s observation that they have names like ‘dog’s vomit’ and ‘scrambled eggs’. When I read that I realised that certainly I have noticed them in the forest!

Australia remains one of the least researched countries in the world for myxomycetes. Most research here has been conducted by scientists visiting from Europe and North America. There are over 1000 species now known worldwide, with 260 in Australia. There is no field guide for Australia. These strange creatures of the forest are known to bear a complex combination of useful chemical elements and it has been speculated that they could be used in the cloning of plants and for bioremediation of polluted soils (Keller & Eberhart,

2010). We must treasure and guard slime moulds because the role they are playing in the jigsaw is poorly understood. Who knows what valuable secrets will be unlocked when they are properly researched? Sarah Cains, Newsletter Editor for APS Southern Highlands Group.

New weed for the region

Weeds Officer David Pomery has brought to our attention an occurrence of Devil's Fig or Giant Devil's Fig *Solanum chrysotrichum* (Solanaceae) in the Macquarie Pass area. The species is from Central America and Mexico and a rather rare weed in New South Wales, mainly occurring on the Far North Coast. While there have been records from Sydney, it has until now not been found on the South Coast. This shrub or small tree has large leaves and a prickly stem and is not likely to be misidentified in our area. It is reported to grow in disturbed areas on better soils, often in former rainforest areas. Flowering in spring, the species produces a yellowish berry about 10–15 mm in diameter. It is not declared noxious in the Illawarra, however it is declared as a Class 3 weed on the NSW North Coast. This species is a potential serious weed and observations should be referred to the Illawarra District Weeds Authority. David reports that he will seek to have it added as a high priority new incursion species in the region's new weeds strategy (currently being developed), allowing the Authority to target the plant on private (with owners cooperation) and public land.



Above. The large leaves of *S. chrysotrichum*; these are about 30 - 40 cm long.

Right. Stem showing the substantial prickles. Photographs provided by David Pomery.



A frog from Bob

Peron's Tree Frog *Litoria peronii* is similar to other local tree frogs; this species is recognised by green flecks on its back and black crosses through the eyes. Frenchman François Péron (1775–1810) was natural historian and anthropologist on Nicolas Baudin's expedition to Australia to map the Australian coastline, coincidentally at the same time and in the opposite direction to Mathew Flinders (they met on Kangaroo Island, SA). Peron was an enthusiastic collector of specimens during the voyage.



Photo. Bob Craven of Jamberoo.