EAST HILLS GROUP NEWSLETTER

Isopogon anemonifolius

JUNE 2016

NEXT EHG MEETING:

From 7pm for 7.30 pm start, Wednesday 1 June 2016

Using Sydney native plants in green walls and green roofs

Speaker: Robbie Renu from Gecko Plantscapes

LUGARNO-PEAKHURST UNITING CHURCH

909 Forest Road Lugarno (opposite the Chivers Hill Lugarno shops)

Visitors are welcome.

If you can, please bring something to share for supper, and labelled specimens for the plant table.

WELCOME to the June edition of the East Hills Group Newsletter. It includes notes and photos from our May meeting (including photos of everyone hard at work – on the puzzle!), and another of the members' presentations from our April meeting Please do have a look at the last two pages for details of some events you may want to attend.

Enjoy your garden!

Jan Douglas, Editor

In this newsletter:

www.easthills.austplants.com.au

AUSTRALIAN PLANTS SOCIETY

FROM THE PRESIDENT

Once again, the numbers attending our May meeting were disappointing. Jan Douglas devised an interesting puzzle whereby one had to match 12 specimens of native plant flowers and fruits to specimens of their foliage. It brought out those who were good observers and the not so good. One of our more recent members was very successful. A good collection of weeds was brought along for the weeds session, and they were successfully identified.

At most meetings I table several articles from Bush Heritage, Total Environment Centre and others. These papers usually have some interesting articles, often on conservation issues, and are worth reading. They can be taken home.

Several members were at the recent propagation day and it is encouraging to see some good results. We have a variety of plants doing quite well.

David Crawford has volunteered to represent East Hills at the Strategic Planning meeting next weekend 28th and 29th May for which we thank him.

We have speakers for the next three months so I encourage everyone to support these people for which I think you will be amply rewarded.

Encourage your friends and neighbours to come also; they don't have to be members.

Graham Walters
President

FJC ROGERS SEMINAR 2016

11th FJC Rogers Seminar

'Native Terrestrial and Epiphytic Orchids'

Hamilton, Victoria

Saturday 8th & Sunday 9th October 2016

Program

Saturday: Full day conference and formal dinner
Sunday: Field trips to Hamilton, Casterton & Grampians Bushland

To Register Your Interest . . .

Contact Mr Kevin Sparrow
Post: 35 Sway St, Warrnambool VIC 3280
email: ksparrow93@gmail.com

This seminar will be popular – make sure you get in early.

APRIL 2016 MEETING - MEMBERS' PRESENTATIONS

(continued from last issue)

Banksia integrifolia and subspecies *or* What you find when you don't expect it!

Graham Fry

Banksia integrifolia or Coastal Banksia is well known to most Sydney residents. The original type specimen was collected in Botany Bay in 1770 by Sir Joseph Banks although it was not described until 1782 by Carolus Linnaeus the Younger, son of the famous Carl Linnaeus who formalised the modern system of naming organisms (binomial nomenclature).

Banksia integrifolia is frost-sensitive and consequently grows only in coastal areas. It is often found in bushland in the St George area, and is also often planted in gardens and parks. It is a useful food tree for nectar-feeding birds, as it flowers in late summer and autumn. It is very widely distributed, ranging from Portland in Victoria to Proserpine in Queensland, and there is some evidence that it once grew on King Island off Tasmania although it is now declared extinct in that state. It is claimed that it has the widest climatic range of any Banksia.

Banksia integrifolia
L: Karlo Taliana
Centre & **R**: Jan Douglas

***Banksia integrifolia* subspecies**

This species has had its fair share of names and re-classifications and the current taxonomy recognises three subspecies:

Banksia integrifolia subsp. *integrifolia*

The nominate subspecies occurs near the coast over most of the species' range except the far north.

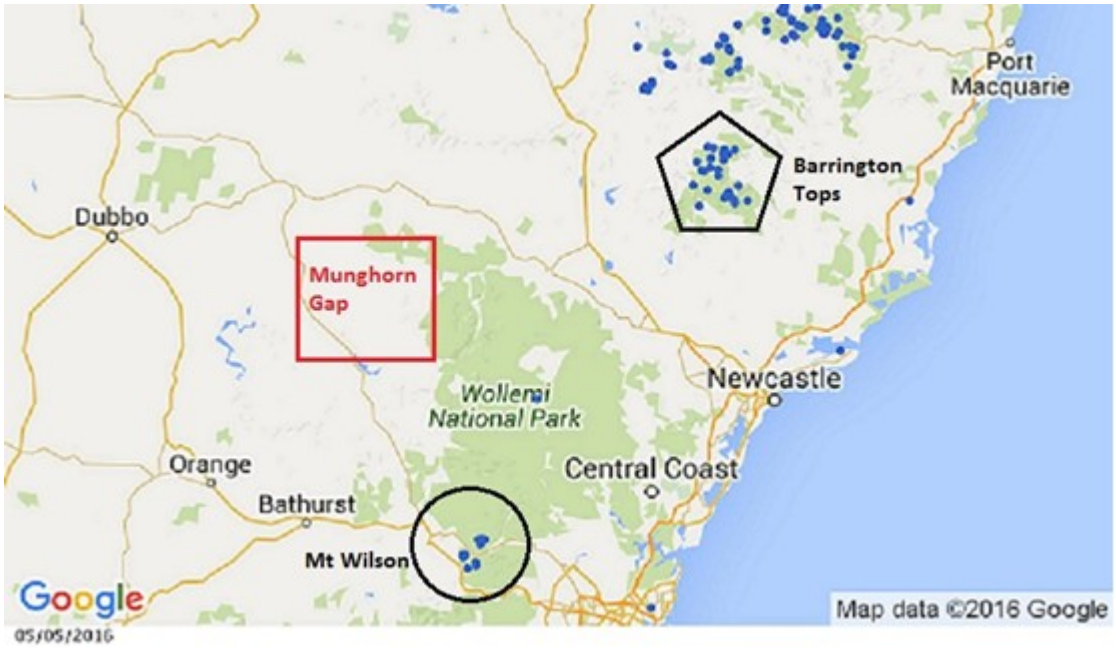
Banksia integrifolia subsp. *compar*

This subspecies grows in coastal Queensland as far north as Proserpine. For most of its range it is the only subspecies, but near its southern limit it co-occurs with *B. integrifolia* subsp. *integrifolia*.

Banksia integrifolia subsp. *monticola*

Commonly known as White Mountain Banksia, it is the only subspecies with a montane distribution.

In NSW, subsp. *monticola* is found on the Great Dividing Range from the Northern Tablelands through to the Blue Mountains: on the map below, blue marks represent records in the various botanical databases. Interestingly, this subspecies is frost-tolerant and tends to grow in soils that are volcanic-derived - that is, of granite or basalt origin. This is in contrast to the nominate subspecies integrifolia which is found in soils derived from sandstone. In the Blue Mountains it is found on the basaltic soils of the Mt Wilson area and according to the Herbarium its next northerly location is the Barrington Tops.



Our interest in Banksias in the Mudgee area

I have been going to Munghorn Gap Nature Reserve for over 30 years, carrying out a long-term bird study, and in that time have got to know the area reasonably well. Nectar-producing plants are always popular with birds, particularly honeyeaters, and so we have good knowledge of what plants are used by birds and the time of year they are normally in flower. Whilst the soil is predominately sandy, there are not many Proteaceae plants in the reserve, but one Banksia is quite common, and when in flower is heavily used by birds. I tentatively identified the banksia as a form of *B. integrifolia* but I was not familiar with this sub-species. So I did some research.

Banksias of the Mudgee district

I first went to Alex George's *The Banksia Book*, which is now probably out of date but it allowed me to confidently identify the banksia as *B. integrifolia* subsp. *monticola* (*B. integrifolia* var. *compar* in the book). However, further research on-line through the wonderful Atlas of Living Australia (www.ala.org.au) which has links to all the major botanical databases in Australia as well as much other information, showed that there were no records of *B. integrifolia* (of any subspecies) in the Mudgee area.

I next consulted the NSW Office of the Environment Bionet database www.bionet.nsw.gov.au. This large database contains the records of many organisms that occur in NSW with particular emphasis on the national park estate. Once again for Munghorn Gap there is no record of *B. integrifolia* but there are two records for *Banksia marginata*.

As part of the research I found an article from the Sydney Morning Herald of the 26 September 1872. The article was headed 'A Glance at the Botany of the Mudgee District', and was written by a W.W. which is thought to be the Rev Dr William Woolls (Baines, 1981) for whom the genus *Woollsia* is named. His 'glance' goes on for six pages with quite detailed descriptions of the plants growing in the Mudgee district. His only mention of Banksia is in the paragraph on Proteaceae in which he states: 'The order of the Proteaceae, which is plentiful in some parts of Australia and even in the Parramatta district numbers nearly thirty species, is somewhat scarce in the Mudgee district. One species of Banksia, three of Grevillea, and two of Persoonia, are the only plants of the family I have met with. The Banksia, which does not exceed 18 or 20 feet is very rare, occurring on sandy soils formed by the decomposition of granite, and growing amidst apple, stringy bark, yellow box and peppermint.' So it seems that this Banksia was known from the early days of botanical exploration in Australia but has so far escaped the attention of botanists.

A new record

It seems that no botanist has researched this species in the Mudgee district as it quite common in Munghorn Gap and even grows beside the main road that passes through the reserve and so would be hard to miss. Interestingly, the species is growing in sandstone-derived soil, contrary to the information found in the virtual herbarium (see above), although there is an underlying basalt rock.

Therefore as a citizen scientist I can now add this record to the Atlas of Living Australia and so expand our knowledge of Australian botany. It is surprising what can be found in areas that we think have been well surveyed.

References:
Baines, J.A. (1981) Australian Plant Genera p. 398.
George, A.S. The Banksia Book p. 50.

What are these? *See page 10 for more...*

THE APRIL PLANT TABLE

Hugh Stacy

Hugh has provided notes on two of the plants that were represented on our April plant table. The list of specimens was published in the May 2016 newsletter.

Eryngium ovinum: This plant has for a long time been known as *E. rostratum*, but this name is now applicable only to a species endemic to Chile. The genus is another of many described by Linnaeus in 1753; plants are generally prickly, resembling thistles.

This species was described by Allan Cunningham and is widespread across NSW, chiefly inland west of the divide; it occurs across all eastern states and through central Australia . The Blue Devil is a stiff erect herb, annual or perennial, to 60cm high; low leaves to 25 cm have linear spiny segments, while stem leaves are shorter, pungent and less divided. The inflorescence has blue flowers in summer, each associated with a rigid spiny bract, green becoming metallic blue when mature, this hue extending to stems and leaves as well. It grows in damp clay or sandy soils of open woodland, pastures or disturbed roadsides.

Dorothy Taylor's specimen was from a birthday bunch of native flowers. Only David Crawford recognised it as potentially a native plant. Its unusual colouring is sought for flower arrangements. [David now thinks Dorothy's specimen may be an exotic species – Editor.]

Pseuderanthemum variabile:

Another perennial herb, 15-30 cm high, with hairy branches. Opposite leaves ovate to lanceolate, to 5 cm long, apex acute to blunt, the lower surface sometimes purple and dotted with glands; late summer flowers are in terminal racemes, each with a bract, corolla white or pale colours pink or mauve. Terminal flowers, larger than lower ones, have tubes to 15 mm and lobes to 8 mm long, the bottom lobe spotted. Seed capsule is about 14 mm long.

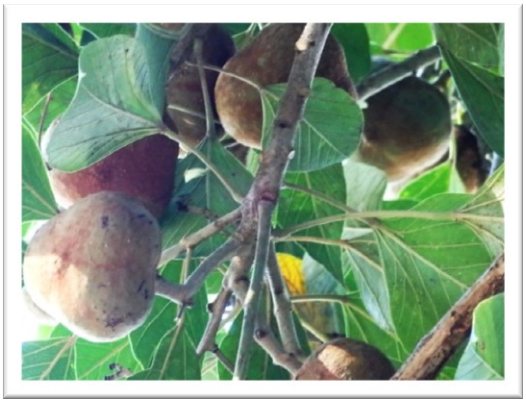
This plant favours sheltered sites on shale and clay soils in coastal forests north from Bega, extending into Qld and NT.

Photo: SGAP Townsville

THE MAY PLANT TABLE

We don't have a list of the specimens on the May plant table, but **Liz Cameron** recorded two plants that were represented on the table by specimens of fruit and leaves and one that was present only as photos.

Jan Douglas gave a brief presentation about three interesting plants she and David had seen on a recent visit to the Royal Botanic Gardens in Sydney. Candle Nut (*Aleurites moluccana* variety from Rockingham Bay area of Qld) a member of the Euphorbiaceae also present in SE Asia with very large fruits containing 3-4 locules; Hoop Pine (*Araucaria cunninghamii*); Giant or King Fern (*Angiopteris evecta*) which has the largest fronds of any fern in the world. In Australia it grows naturally in Carnarvon Gorge and on Fraser Island as well as in far north Queensland; the specimen Jan photographed in the Gardens is more than 46 years old (photos below left).



MAY MEETING - WEEDS!

Liz Cameron

Members talked about weeds (including some natives) they had brought along.

The following information comes from various sources including NSW WeedWise: http://weeds.dpi.nsw.gov.au/ **See this site for useful photos**.

Native Grape *Cayratia clematidea* (family Vitaceae) – has long underground stems that usually form small tubers and tendrils that help it climb over, and almost smother, other plants; fortunately the tendrils lack adhesive discs, so it is relatively easy to pull off. It is native to Sydney and David Crawford agreed with Graham Fry that it is almost impossible to eradicate in the garden because of the tubers and long underground stems. It is a food plant for the caterpillars of the brightly coloured, day-flying Joseph's

Coat Moth, *Agarista agricola*. The introduced Balloon Vine *Cardiospermum grandiflorum* (family Sapindaceae), which is native to Argentina and Brazil, is superficially similar but it has pale yellowish hairy stems and no tubers, and can be removed relatively easily by pulling out by the roots.
[Graham Fry has written an article on *Cayratia clematidea* – look for it in the July newsletter - Editor.]

Sweet Pittosporum ***Pittosporum undulatum*** (family Pittosporaceae) is also native to Sydney but has become more common in areas where the environment has been altered by humans. Unlike most natives, *P. undulatum* takes advantage of high nutrient levels and its seeds can germinate without needing fire. Increased soil nutrients resulting from runoff from homes, and suppression of bushfires near suburbs have contributed to its increase at the expense of other native shrubs and small trees.

African Olive ***Olea europaea*** **subsp.** ***cuspidata*** (family Oleaceae) - a tropical wild olive that comes from eastern Africa; it is related to the edible European olive but its fruit is not edible and it has no commercial value. Seeds spread by birds. It was introduced into Australia as a hedging plant and rootstock for edible olives in the mid-1800s, and has now spread rapidly throughout the Camden-Picton district. Small plants are easily pulled up by the roots. Australian Botanic Gardens at Mt Annan are trialling control by browsing South African Boer goats on the olives (SMH 14-15 May 2016).

Ochna or Mickey Mouse Plant ***Ochna serrulata*** (family Ochnaceae) – native to South Africa and sometimes grown in Australian gardens as an ornamental shrub because of its colourful yellow flowers, shiny green leaves and glossy black fruits embedded in a red calyx. Birds are attracted by the red calyx and eat the black fruits, spreading the seeds widely. It is very difficult to eradicate - the strong deep tap-root has a characteristic kink and usually breaks at this point, leaving a viable residual root stock that will reshoot.

Asparagus Fern or Ground Asparagus ***Asparagus aethiopicus*** – (family Asparagaceae, native of South Africa) - another invasive species with bright red fruit which are dispersed by birds. It grows quickly and produces dense, vigorous thickets of foliage that smother native herbs and shrubs; it has a dense root mat that impedes growth of native seedlings. There is a central crown below the surface from which the stems and roots grow. The crown must be cut out and removed; all berry-bearing stems must also be removed but the water tubers and roots may be left in the soil.

Parramatta Grass ***Sporobolus africanus*** (family Poaceae), native to Africa. A tufted perennial grass with tough wiry leaves which are hard to mow, and a tangled root mass that is very difficult to pull out. A larger species, Giant Parramatta Grass *S. fertilis* is a native of tropical Asia and declared a noxious weed in Australia.

Lantana ***Lantana camara*** (Verbenaceae, native to American tropics). Needs no introduction. In bush regeneration it may be important to retain the dead plants as shelter for small birds (fairy-wrens, scrubwrens etc) while native shrubs are being re-established.

A number of the plants brought in belonged to the family Euphorbiaceae, or to a closely related family, the Phyllanthaceae.

Cheese Tree ***Glochidion ferdinandi*** (family Phyllanthaceae) – another local tree that is becoming more numerous in Sydney. The fruits are eaten and dispersed by many birds and it grows rapidly; it may become as unpopular with bush regenerators as Sweet Pittosporum. Can be mistaken for Broad-leafed Privet but latter has leaves arranged opposite each other, not alternately as in the Cheese Tree. Name derives from the shape of the fruit – like a cheese wheel, or a pumpkin; the seeds are bright orange.

Petty Spurge, also called Milk Weed or Radium Weed ***Euphorbia peplus***, (family Euphorbiaceae) – this is a very common garden weed that flowers and fruits at an early age. Easy to pull up but it may have already spread seeds. All species of *Euphorbia* contain milky sap or latex which is an irritant, causing contact dermatitis in some people; important to wear protective clothing and avoid touching the eyes after handling the plants. A number of *Euphorbia* species are grown as ornamentals, especially Poinsettia (*E. pulcherrima*) and Crown of Thorns (*E. milii*); commercial products from members of the Euphorbiaceae include rubber and castor oil, and the tuberous roots of Bitter Cassava (*Manihot esculenta*) are a staple food in tropical areas.

Phyllanthus tenellus **sometimes called Hen and Chicken** (family Phyllanthaceae, formerly Euphorbiaceae). Native of Mauritius, now established from Cape York Peninsula to central coastal NSW). Superficially similar to a native shrub, *Breynia oblongifolia*, and they often occur close together in gardens and bushland. *P. tenellus* grows only to about 50 cm; the stems and leaves are light green; leaves are 6-25mm long, slightly pointed at the tip and have a very short petiole; the ripe fruit is a green capsule.

Coffee Bush ***Breynia oblongifolia*** (also Phyllanthaceae) is a widespread native, usually growing to 3 m high. Its stems are reddish when young, the leaves are darker green and stiffer, 20-30mm long and rounded at the tip; leaf petiole 1-3mm long; ripe fruit is an orange-red berry, turning black. Source: Trees in Newcastle website:
http://www.treesinnewcastle.org.au/page33700/Information-February-2015.aspx#BP

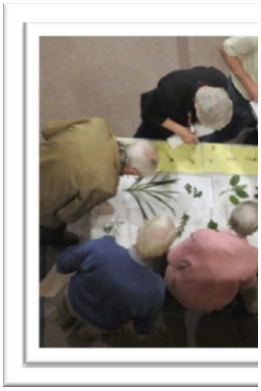
Graham Walters and Liz Cameron both brought samples of a small prostrate plant they have noticed only in the past few years, most often growing in cracks in paths. This is **Red Caustic Weed** ***Chamaesyce prostrata*** (family Euphorbiaceae, native to tropical America). A prostrate annual herb with small reddish leaves and several reddish stems to about 20 cm long which form dense mats, often in cracks of paths and in gardens. See New South Wales Flora Online:
http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Chamaesyce~prostrata

Also see warning about irritant latex present in other members of family Euphorbiaceae.

THE MAY MEETING PUZZLE

Jan Douglas

Time to exercise the brain cells! The puzzle I put together consisted of 24 plant specimens from our garden, each labelled with a numeral or a letter. The task was to match each specimen of flowers or fruit (the lettered samples) with the corresponding specimen of foliage (the numbered samples) and if possible to identify the genus to which the plant belonged. As Hugh Stacy remarked, I had been very careful to remove all signs of the flowers from the foliage samples!



Members hard at work!

The solution:

THE BUSINESS

East Hills Group Meeting – 4 May 2016

Meeting notes by Liz Cameron.

The May meeting was held at Lugarno-Peakhurst Uniting Church and was chaired by the President, Graham Walters. Eight members and four visitors attended. There were three apologies. Meeting commenced 7.40 pm after a pleasant chat over a cup of tea or coffee

Calendar of events:

- Reminder of Menai Group propagation day on Saturday 7th May.
- APS NSW AGM on Saturday 21st May, hosted by the Sutherland Branch
- APS Strategic Planning Workshop on week-end of 28-29 May: David Crawford will attend in his capacity as Editor of Native Plants of NSW. Hugh Stacy said he was considering the matter but was not sure he would attend.
- APS Tamworth gathering 20-21 August – details in Native Plants for NSW.

- FJC Rogers seminar about native orchids, Hamilton Victoria, 8-9 October – worth making an effort to attend.

Stalls at Spring Fairs – possibility of holding one at Summer Hill Festival instead of East Hills Girls High School. Liz to find out the dates of both.

Speakers at EHG meetings –

- Dorothy Luther is willing to give a talk to East Hills Group in June or July.
- Perhaps contact Shauna Chadlowe of Australian Wildlife Conservancy for another talk – would need to gather a larger audience to make it worthwhile for her.
- Sue Walters has provided contact details of a horticulturist who works around Gladesville and has created vertical gardens.

Christmas meeting - need to think what kind of entertainment we'd like; Graham may be able to line up Craig Edmonson and Stefano Consentino (Country and Bluegrass music) again.

Correspondence in: Total Environment Centre requesting a donation. EHG sends donations each June to organisations like WIRES, Australian Wildlife Conservancy etc; we need to select this year's recipients.

Articles tabled: Bush Heritage brochure on the Night Parrot; article in Gardening Section of Sydney Morning Herald Spectrum on Fungi.
Native plants in the garden that attract native bees – Graham read a list that included *Brachyscome, Callistemon*, Christmas Bush, *Hibbertia scandens*, Lemon-scented Tea Tree and *Thryptomene*.

Propagation – Jason Cockayne (Menai Wildflower Group) brought waratahs to the meeting to give away. Graham Walters and David Crawford will go to the Menai Propagation Day on Saturday 7th May. Lloyd Hedges suggested some rooting hormone would be a suitable donation from EHG in exchange for the use of the MWG propagation facilities at Illawong.

COMING EVENTS – CHECK YOUR DIARY!

MENAI GROUP PROPAGATION SESSION - From 1 pm on Saturday 4 June

APS BLUE MOUNTAINS GROUP ANNUAL SEMINAR 2016

From 9.30 am to about 2.30 pm, Sunday 3 July 2016

Gardening with Australian Plants

There will be two speakers - Stuart Pittendrigh and Heather Miles - and possibly a third.

Stuart Pittendrigh will speak on the design, growing and landscaping of Barangaroo. Stuart played a significant role in the design and development of this foreshore park near Millers Point. Heather Miles will give a personal reflection on her approach to landscaping her Hunter Valley property with native plants. Heather is a member of the Hunter Valley group and Secretary of APS NSW.

Location: At the hall next to the Glenbrook Cinema. **Cost**: $20.00 including morning tea and lunch.

To attend: please email alix.goodwin@bigpond.com **no later than Sunday 19 June 2016**.

COMING EVENTS – CHECK YOUR DIARY!

You can find more district group events at http://www.austplants-nsw.org.au/calendar6.html

Wednesday 1 June **From 7 for 7.30 pm start**	**East Hills Group meeting** – Robbie Renu speaking on **Using Sydney native plants in green walls and green roofs**
Saturday 4 June **1 pm**	**Menai Wildflower Group** propagation meeting. Illawong Rural Fire Brigade Headquarters
Wednesday 15 June **From 7.45 for 8 pm start**	**Sutherland Group meeting** – **Growing a bush-tucker garden** with Narelle Happ (Sydney Wildflower Nursery, Heathcote)
Monday 27 June **7.30 pm NEW TIME**	**Oatley Flora & Fauna Conservation Society** – Screening of **'Man from Coxs River'** about removal of feral horses from Blue Mountains National Park. **NEW VENUE** Oatley RSL & Community Club, 23 Letitia Street, Oatley
Sunday 3 July	**APS Blue Mountains Group Annual Seminar 2016 - Gardening with Australian Plants** See page 11 for more information.
Saturday 8 & Sunday 9 October 2016	**FJC Rogers Seminar – Terrestrial and epiphytic orchids**. Hamilton, Victoria. See page 2 for more information.

Heather Zande's beautiful garden, open as part of the APS NSW Gathering on 21 May.

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