NEWSLETTER

AUSTRALIAN PLANTS SOCIETY, MITCHELL GROUP INC.
aps.mitchell@gmail.com
PO Box 541, Kilmore, Victoria 3764
Inc# A0054306V

July 2014
Volume 1, Issue 2

July news...!

Hello all!

And welcome our second issue.

Your group committee is hard at work planning and organising as usual. Currently on the agenda is the trip to RBG Native Gardens at Cranbourne for which we still need numbers (see below).

Goodenia gracilis
(Photo: Barbara Mau)

This month I'd like to say a special thank you to our newest article contributors Ian, Neil & Victoria. I love that the call for contributions is being answered. The more people sending in items large or small, the better our newsletter will be. So please keep your ideas, articles, photo's, snippets & items of interest rolling in.

And of course planning for our annual Plant Expo is well underway. Volunteers will be needed the evening before for set up, and then for a variety of tasks on the day in order to make it the successful and enjoyable promotion and fund raising event we'd all like it to be. Volunteering is a great way to get to know your fellow members, make friends, share and learn from the more experienced among us and as we all know, many hands make light work.

Our next issue is due out the 2nd Monday of August (11th), with the dead line for contributions the 1st Monday-August 4th.

Contributions can be sent to me at : wattlegum@southernphone.com.au or Mailed to PO Box 381, Pyalong Vic 3521

Until next month, cheers, stay warm & happy gardening,

Jeanine Petts

Inside this issue:

Cranbourne Gardens Excursion

Have you ever wanted to visit the Royal Botanic Gardens Cranbourne? **http://www.rbg.vic.gov.au/visit-cranbourne**

The committee is still planning a visit to the gardens for Sunday September 28th, 2014. However, we have yet to reach the numbers required to fill a bus, so expressions of interest are still open. You don't need to be a member of APS Mitchell to come along so invite your friends, families, neighbours etc. and join us for a great day out. Should we not reach the requisite numbers for a bus (around 50) car-pooling will be organised.

Send your RSVP to Lorraine ASAP, Email: lorraine_brian@bigpond.com

Mobile: 0427 323511

" You don't need to be a member of APS Mitchell to come along, so invite your friends, families, neighbours, etc. and join us for a great day out"

RSVP to Lorraine ASAP

Mitchell Diary Dates..

- **JULY 21st 7:30pm MEETING Guest Speaker: Jason Caruso on Euc's for small gardens.**
- **AUGUST 18th 7:30pm MEETING Guest Speaker TBA**
- **SEPTEMBER 15th 7:30pm MEETING Guest Speaker: Vince Davey from NEUTROG**
- **SEPTEMBER 28th Royal Botanic Gardens Cranbourne Excursion Via Bus if numbers permit or alternatively, Car-pooling**
- **OCTOBER 18th APS Mitchell PLANT EXPO Kilmore Memorial Hall 14 Sydney St, Kilmore 9 am - 3 pm**
- **OCTOBER 20th 7:30pm MEETING Guest Speaker: Frances Saunders on Garden Design using Australian Native Plants**
- **NOVEMBER 17th Talk & Garden Visit Barbara Mau**

Correspondence from abroad...

(Photo: Victoria Morris)

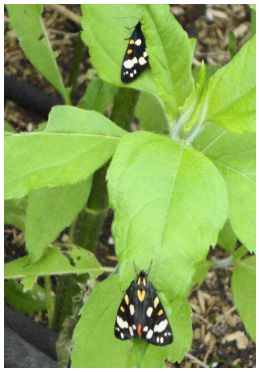
Morris Men dancing at the Leafield Village Fete.
(Photo: Victoria Morris)

Many thanks for all the news,
Not much to send here as the garden for obvious reasons, is just grass and shrubs with some fruit trees, a tiny veggie patch, soft fruit cage and chook run.

The front garden though is wild flowers and is looking lovely at the moment, the dominant species seem to change every year, so it is never the same. It is full of insects, slugs and snails ! don't spray so the hedgehogs and birds love it.

The moths are scarlet tigers - *Callimorpha dominula* spotted on my Jerusalem artichoke plants.
Yes, they are real Morris Men (no relations) dancing last weekend on the village green at our annual Leafield Village Fete. Kiwi friends of ours told us years ago, that Morris dancing 'was how the Poms dry their hankies'! It is a popular tradition around here.

Anyway, I'll look forward to the next instalment of the newsletter and hope you are all hibernating well. All the very best, Victoria Morris



scarlet tigers - *Callimorpha dominula*
(Photo: Victoria Morris)

MEETINGS ARE HELD ON THE 3rd MONDAY OF THE MONTH (February to November)

In the John Taylor room at Kilmore Library

12 Sydney Street, Kilmore

Entry $2.00 Gold Coin

Door Prizes

Plant Sales

Fertilizer Sales (APS Mitchell Slow Release fertiliser $5.00 per 500g)

Use of the APS Mitchell free Library (See Barbara)

Supper & Chat

VISITORS VERY WELCOME

Members & Visitors are encouraged to bring along exhibits for our Flower Specimen Table

Please label plants

July Meeting - Monday the 21st 7:30pm

Jason Caruso is joining us to talk on Eucalypts for small gardens.

Jason is a marine educator and has been doing this for around 13 years. Apart from a passion for the aquatic world, he is also a member of APS Keilor Plains district group and a keen gardener with a particular interest in growing native plants.

Over the past 10 years Jason has been growing/ propagating natives, mostly in pots and as bonsai, and has also landscaped several native gardens. One favourite plant group is the Eucalypts and he enjoys propagating many unusual, rare, ornamental and small species “so others can enjoy their beauty in their own garden."

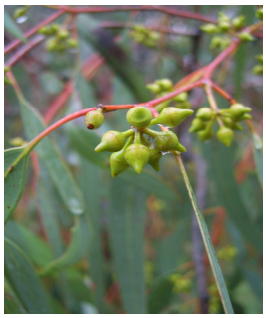


Photo: J Petts

Membership News ...

All members should have received a copy of the June *Growing Australian* by now. But remember the membership forms included with the APS Vic magazine are only for lone members.

Members of our District Group should pick up an APS Mitchell renewal form (Includes APS Vic Membership) at our monthly meeting or contact Bill Barker on 5783 3838. For fee rates & other details see back page.

June Meeting Report

By Ian Julian

At APS Mitchell's June meeting Ken Walker senior curator at Museum Victoria gave us his second presentation following on from last year's native bee presentation this time on Australian spiders. Again this was another informative and enjoyable presentation from Ken who is one of only three full time Arachnologists in Victoria. The highlights being the detail and video clips and I don't know about you but I certainly learnt a lot with a very different appreciation of spiders.

Ken started with the story of Arachne where the name Arachnid comes from in Greek Mythology. Arachne was a beautiful maiden skilled in weaving and embroidery. She believed & boasted she was a better weaver than the Goddess Athena, the Goddess of wisdom, weaving and strategy. Athena, when offended by Arachne turned her into a spider and cursed her and all her descendants to weave for all time.

Worldwide there are 34,000 named spider species and over a million insect species with 3300 named spider species in Australia but this thought to be over 10000. Out of all of these Australia only has 2 known deadly species the Red-Back and Sydney Funnel-Web. The last person to die from a Red-Back bite was a postman who was bitten when putting his hand into a letter-box, the venom is slow acting he took 8 days to die. There have been no deaths since 1956 when the antivenene was developed.

There have been no deaths from Sydney Funnel-Web spider bites since Professor Straun Sutherland developed the antivenene in 1981. One of the reasons the antivenene took a long time to create was that the Funnel-web spider toxin has some different and interesting properties. The toxin adheres to glass so it wasn't until plastic test tubes came into use that the toxin was isolated and the antivenene developed. The Funnel-Web venom does not affect cats and dogs.

Ken asked, "What is a spider?" and "How do we identify them?"

Spiders have 2 body parts – a cephalothorax (a combined head and thorax) and an abdomen with silk producing spinnerets at the rear, 8 legs (4 pairs), no antennae and Simple eyes (Insects have faceted eyes). Whip spiders, ticks, mites, pseudoscorpions, harvestmen and scorpions are all part of the Arachnid family.

Spiders have two distinct types of fangs:

- Parallel – Mygalomorphae, 'ancient spiders' which have remained unchanged for millions of years and includes Trap-doors, Mouse spiders, Whistling spiders and Funnel-webs.
- Cross over –Araneomorphae, or 'modern spiders'.

Eye types are used for further classification, most spiders have 8 eyes although some have six. Fangs parallel type spiders strike on vibration and generally have weak eye-sight. Web builders have large heavy abdomens, long legs and weak eyes that can only distinguish light and dark. The Christmas spider is an example of this group. Jumping spiders have very strong eyes, web spiders don't need big eyes and Vagrant hunting spiders have very big eyes. Only the wolf spider has separate distinct eyes. A great night-time activity with children is to go outside and hold a torch up at your ear and as you turn and if they are about you will see a Wolf spider's two big eyes reflecting back at you.

Lycosa (species) Wolf spider close up
http://museumvictoria.com.au/spiders/detail.aspx?pid=21&pic=3

Spiders are divided into broad categories based on how they catch their prey:

Araneomorphs hunt and do not make webs an identifying feature of Vagrant hunters are that they have narrow light abdomens.

(Continued on page 4)

June Meeting Report

By Ian Julian

(Continued from page 3)

Vagrant Hunters, who stalk their prey and don't use a web.

Ambush Hunters, who lie in wait for their prey and don't use a web.

Thieves, who live in a larger spiders web and steal prey or prey on the larger spider.

Anglers, who use a web but actively catch prey. One such is the Bola spider which exudes mimicked pheromones to attract male moths and then swings a sticky drop on a thread with great speed and accuracy to catch prey.

Web builders, who use a web and lie in wait to catch prey.

Trap-door spiders (a mygalomorph) often use a burrow with outward radiating lines of web. The spider lies in wait with its feet on the "trip wires" waiting for prey to cause the requisite 2 or more vibrations for the spider to come rushing out and claim its meal. A leaf falling on "trip wires" will only vibrate one line so the spider knows not to respond.

Arkys species spiders are ambush hunters along with Flower Spiders. Flower spiders generally live on flowers of matching colour waiting for insects to land. Jumping Spiders are also ambush hunters and some jumping spiders mimic ants and beetles.

One of the Daddy long-legs spider's favourite foods is the Red-back spider but it is a myth that their venom is deadlier as the venom of any spider will kill a Red-back. When a Daddy long-legs comes across a Red-back spider web it will strum the web tricking its maker into coming out thinking an insect is caught and ending up being a meal itself.

White-tail spiders are vagrant hunters and it is a myth their venom causes large scale ulceration and sloughing off of skin. Often the culprit is inoculation with Bacteria. Our skin is just the right temperature for bacterial growth and any spider bite can also carry bacteria. White-tail venom only usually causes a small swelling that may blister.

There are 200 different species of Huntsman spiders and one of their identifying features is their first two sets of legs longer than their hind pair. This enables them to move side-ways and they are designed to move around under bark. The Pink or Shield Huntsman has a distinctive letter B on the underneath of its abdomen.

Sex of Spiders

All spiders have a large cuticle exoskeleton (outer coat) and need to moult to grow larger, when moulting they make a silk bed as their new skin is very supple and will take 30 mins to oxidise harden up.
The sex organs of male spider do not become apparent until its last moult and are located in the front palps (touch organs). Female Genitalia is called the epygyne and is located underneath the abdomen.

The easiest way to identify a male is look for Boxing Gloves. If it's got boxing gloves "It's a male". After the males final moult it will stop eating and go in search of females. Males can only mate twice and even if they do not mate or get eaten by a female will die anyway. Male spiders that do end up being eaten by a female he's mated with provide a protein rich meal that helps with egg production. The position a male spider has to get into to mate with a female puts him in very risky reach of a female's fangs so consequently males are very careful when mating. One of the Jumping spiders, a Peacock spider from the Stirling Ranges in WA performs a very cautious, colourful and entrancing mating dance.

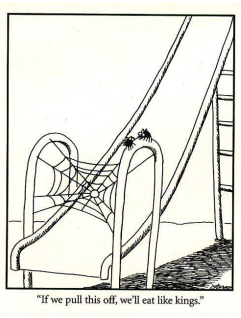
Egg sacs contain multiple eggs, for example a Huntsman egg sac will contain 30-40 eggs. The most motherly of spiders is the Wolf spider, the female will carry her spiderlings on her back for about 1 week. Scorpions also carry their young.

(Continued on page 5)

June Meeting Report *continued...*

By Ian Julian

(Continued from page 4)



Cartoon: Gary Larson

As a general rule the smaller the spider equals the smaller the life span. A female Funnel web's life span can be 10 years, a female Tarantula 20 years and a Garden Orb spiders is 1 year.

Web Building

An Orb-weaving Spider provides an example of web building. 1st a silk thread is let out and allowed to drift until it connects with a shrub or branch etc. A 2nd silk is let out and then a third to form a triangle. Then the spider lays out the main struts and finally fills the radiating strands in, in typical pattern. The whole process takes around an hour and the web not only catches insects but also pollen which is a protein meal and the web itself is also recycled.

The St Andrews Cross Spider is another web builder and the central cross of silk in the web reflects UV light and acts as an attractant. Other web users are:

- The Bird Dropping Spider also a master of camouflage and often found in Citrus trees.
- The Magnificent Spider or Bola Spider which replicates the pheromone of 6 different moths.
- The Golden Orb Spider which has very strong webs that are used in New Guinea as fishing nets. Also known as a bird catching spider, its web only catches birds that are sick and unable to fight their way free of a web.
- The Garden Orb-weaving Spider who's 1st joint of each leg is red.
- The Black House Spider – The one that makes lacy funnelled webs around window frames and doors. It's also had a name change to avoid confusion with the Sydney Funnel-web.
- The Leaf Curling Spider, of which there is only 1 species.
- The Red-back Spider, with its deadly venom designed for vertebrates preys on skinks and young snakes, which is why its venom affects people.
- The Ogre-faced Spider, Retiarius Spider or Net-casting spiders which throw web over their and then cocoon their prey.

Ballooning and the gossamer effect

Spiderlings "balloon" to disperse over long distances. A few days after hatching, spiderlings release long strands of silk until enough silk is released to lift them up into the air. They can travel long distances riding winds and thermal currents. The gossamer effect occurs when spiderlings balloon and then effected by wind currents and eddies all come down together.

Spiders eat the approximate equivalent weight in insects each year as the weight of entire world-wide population of humans so they are valuable predators and environmental balancers.

Spiders also suffer from parasites. The Gordian worm an aquatic worm (known for the Gordian knot) and various wasps lay larvae both inside and on their hosts. Larvae on the outside of a spider make their host wrap itself to form a cocoon and larvae that are laid inside a paralysed host eat the spider from the inside out.

A Gossamer effect
Photo: Maureen Runge: "Cobwebs and Kilmore town"

(Continued on page 6)

June Meeting Report *continued...*

By Ian Julian

(Continued from page 5)

Ken has even discovered there are "scaredy cat" spiders. Some spiders can be scared out of their burrows by the vibrations from diesel car engines. They will leave their holes and climb blades of grass etc.

The wonders of silk

Silk is five times stronger than steel, three times stronger than Kevlar. However it is so fine it takes 1500 strands to make a single thread. One of the things spider silk has been used for is wound patches and even a dress. The dress was made from Golden Orb Weaver spider silk, took four years to make and the colour of the dress natural colour of the Golden Orb weaver silk.

Image: http://www.dailymail.co.uk/femail/article-2090608/Reviving-lost-tradition-Cape-silk-million-spiders-unveiled-new-exhibition.html

Reference:

http://museumvictoria.com.au/bugs/exhibition/collection.aspx

http://museumvictoria.com.au/spidersparlour/links.htm

http://museumvictoria.com.au/spiders/book.aspx

In Flower Now...

By Ian Julian

Hakea decurrens

Hakea decurrens, common name Bushy Needlewood.

It is a local species of shrub or small tree in the family Proteaceae. It is erect in habit, growing to between 0.3 and 5 metres tall. Good habitat for birds as it has sharp spines. Grown from local seed.

From decurrens, Latin for decurrent or prolonged below the point of insertion, a reference to the insertion of the leaf on the stem in this species.

Photo: Ian Julian

Query Corner?

This section is for members questions, wish lists, has anyone got? Does anyone know? Where can I find, Etc… (Just send your questions in.)

Lorraine asks…

Does anyone have cuttings of *Correa* Cappuccino?

Large jars needed for the Expo

The committee are working towards putting a kit of items together for future use at our plant exhibitions and displays.

One of the many items needed to be organised are jars and vases. If anyone has spare vases & jars of reasonable sizes (1-2 Lt) or can collect them for the group it would be greatly appreciated.

The Australian Essential Oil Industry

Provided by Neil Humphreys

Historical Overview

In November 1788, some ten months after the establishment of the colony of New South Wales, 1 quart (roughly 1 litre) of the steam distilled leaf oil of the Sydney peppermint gum, *Eucalyptus piperita*, was sent to England by John White, Surgeon-General to the Colony, thus laying claim to being the first useful natural product produced in Australia. In 1852, at the prompting of the botanist Baron Ferdinand von Müller, the English pharmacist Joseph Bosisto started commercial production of eucalyptus oil at Dandenong near what is now Melbourne. The eucalyptus oil industry continued to expand and Australia remained the world's largest supplier of eucalyptus oil well into the first half of the 20th century.

The development of the infant Australian essential oil, and in particular of the eucalyptus oil, industry was adversely affected by several problems, the chief of which was the variable quality of the oils traded. There were several reasons for this unsatisfactory state of affairs, such as:

- The botanical classification of the novel, unusual and often very complex Australian flora was only in its beginnings – which led to confusion and uncertainty in the identity of the species distilled (it should be noted that at the present time there are in the family Myrtaceae alone close to 1000 species of Eucalyptus, at least 230 species of Melaleuca, 80 species of Leptospermum, etc and the numbers are still growing).

- Large variations in the quantitative composition of essential oils from the same botanical species, including the existence of chemical varieties (the "physiological forms" of Penfold and Morrison).

- The worldwide lack of knowledge of the chemistry of terpenoids, a class of often unstable and occasionally complex essential oil constituents, which seriously hampered the researches of early essential oil chemists.

The situation improved through the efforts of the German pharmacist and botanist Baron Ferdinand Von Müller, appointed in 1853 Government Botanist of Victoria. His vast contribution to botanical knowledge of the Australian flora, particularly that of south eastern Australia as well as that of other botanists such as J. H. Maiden, W. F. Blakely etc. was extended in the early 1900's by workers at the Museum of Applied Arts & Sciences in Sydney, namely the chemist H. G. Smith and the botanist R. T. Baker and some twenty years later the chemists A. R. Penfold and F. R. Morrison.

These advances in botanical as well as in chemical knowledge led to an increase in the search for useful oils from the vast Australian essential oil flora and thus to the expansion of the Australian essential oil industry.

Medicinal oils:

Eucalyptus oils rich in 1,8-cineole have been distilled on a large scale from *Eucalyptus polybractea*, *Eucalyptus radiata* subsp. *radiata* (known in the trade as "*Eucalyptus australiana*"), *Eucalyptus dives* var. C and several other species, mainly in N.S.W. and Victoria. The medicinally active constituent is 1,8-cineole (syn.: eucalyptol).

These oils are used in various pharmaceutical preparations, as inhalants etc. The leaf oils of the terpinen-4-ol rich varieties of *Melaleuca alternifolia* and *Melaleuca linariifolia*, growing in coastal central and northern NSW, are bactericidal and have been used as antiseptics. The Western Australian sandalwood oil from *Santalum spicatum* was once used extensively for medicinal purposes (as a bactericide). It has been produced in Western Australia from the 1880's onwards. Its production increased from about 1.5 tonnes in 1920 to about 54 tonnes in 1932. It was later supplanted by the antibiotics.

(Continued on page 8)

The Australian Essential Oil Industry *Continued...*

(Continued from page 7)

Industrial oils :

Produced from *Eucalyptus dives* "type" and from *Eucalyptus radiata subsp. radiata* (also known as " *Eucalyptus phellandra* ") and *Eucalyptus dives* var. A. All three species have been distilled in southern N.S.W. and in Victoria. The laevo-piperitone rich *E. dives* "type" oil has been a valuable source of laevo-piperitone which has been used in the commercial production of laevo-menthol and thymol. All these oils, but particularly the phellandrene-rich oils from *E. dives* type and *E. australiana*, are excellent paint removers and solvents for grease, fats and oils. The cineole-rich eucalyptus oils are likewise very good grease removers and have been used for that purpose.

Perfumery oils:

Western Australian sandalwood oil (from *Santalum spicatum*) was used in a small way as a fixative in perfumes. Boronia Absolute Otto was produced from the flowers of the Western Australian *Boronia megastigma*. Boronia perfume and Boronia scented cosmetics have been produced by the Perth firm Plaimar in the 1920's.

Small amounts of *Eucalyptus citriodora* (now renamed *Corymbia citriodora*) leaf oil, *Leptospermum citratum* (now renamed *Leptospermum petersonii*) leaf oil and the somewhat rose-scented *Eucalyptus macarthurii* oil (both leaf as well as bark) have also been produced.

Post-world War II to present day developments

Early essential oil producers collected foliage from natural stands. This proved to be uneconomical as labour costs were too high as well as being ecologically unsustainable. In order to remain competitive essential oil producers turned to plantation grown plant material. Selection of the plants grown as well as mechanisation of the whole production process (planting, harvesting, oil extraction) was found to be essential for profitable essential oil production.

An early example was the successful establishment of a French lavender (*Lavandula angustifolia*) plantation by the Denny family in Tasmania during the immediate post world war II years.

Whilst the production of piperitone type eucalyptus oils has ceased owing to the discontinuation of the synthetic menthol industry, the bulk of eucalyptus oil produced at the present time is of the 1,8-cineole type from *Eucalyptus polybractea* and to a much smaller extent of *Eucalyptus radiata* subsp. *radiata.* Some cineole-type oil is also produced in Western Australia from *Eucalyptus plenissima*, *Eucalyptus polybractea* and several other mallee species. In almost all cases the trees harvested are plantation grown.

The major Australian essential oil is at the present time Tea Tree oil produced from *Melaleuca alternifolia* and to a smaller extent from *Melaleuca linariifolia* and *Melaleuca dissitiflora*. Tea tree oil is used mainly as a cosmetics additive.

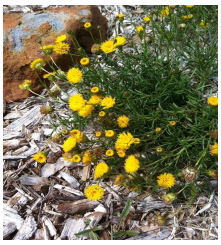
Minor essential oils produced at the present time are from: *Melaleuca quinquenervia* (Nerolidol type), *Backhousia citriodora*, *Anetholea anisata* (previously known as *Backhousia anisata*), *Leptospermum petersonii*, *Eucalyptus olida*, *Eucalyptus staigeriana, Callitris intratropica* as well as *Santalum spicatum*. There is also a small production of *Boronia megastigma* absolute.

Essential oils from introduced species include: bitter fennel oil (a major oil), peppermint oil (about 10 – 30 tonne p.a. depending on the season), dillweed oil, parsley herb oil, hop oil, sweet orange oil and lemon oil. Small amounts of various *Lavandula* oils are also produced (mostly lavandins).

Reprinted with kind permission of the Essential Oil Producers Association of Australia

APS Mitchell Plant Expo—October 18th, 2014

Kilmore Memorial Hall 14 Sydney St, Kilmore 9 am - 3 pm



Rutidosis leptorrhynchoides, Button Wrinklewort (nationally endangered)

Photo: B Mau

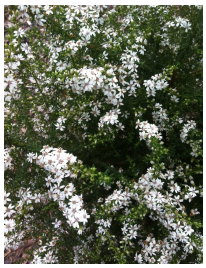
Native Plant & Flower Displays

Victorian Native Bonsai Club exhibit & demonstration

Kilmore Art Society Display

Art by Local Artists:

Themes of native fauna, flora and Aussie landscapes



Olearia ramulosa Twiggy Daisy-Bush

Photo: B Mau

Plant, Book & Art Sales

APS Mitchell - Assorted Native plants

APS Victoria - Books

Joan & Peter Broughton, Ironstone Park - Assorted Plants

John Forrester - Assorted plants

Kilmore Art Society - Art by local artists

Lorraine & Brian Weir - Low graft & Standard grafted Grevilleas & Correas

La Trobe indigenous plant nursery - Indigenous tube stocks

Volunteers are needed to assist with: Set up on Friday October 17th, also on Saturday October 18th with Ticket Sales/Entry, Plant Sales, Catering (Tea & Coffee), Pack up & Clean up etc. A sign up roster will be made available at forthcoming monthly meetings or contact Lorraine: lorraine_brian@bigpond.com

Garden Guide- What's to do in July…

By Barbara Mau

After a long hot summer the autumn and winter rains have bought on the 'wonderful weeds' too! The ground is now moist making their removal quite easy. So time to rug up and do some good hand weeding therapy. Take care not to weed out your *Arthropodium milleflorum*, Pale Vanilla-Lily, *A. strictum*, Chocolate Lily and young *Bulbine bulbosa*, Bulbine Lilies. These local lilies are emerging right now and can be mistaken for weedy winter grasses.

In my garden the grassland flowers are sending up their new shoots. The *Bulbine bulbosa*, Bulbine Lily and *Pimelea humilis,* Common Rice Flowers are early this year. Small patches of *Rhodanthe anthemoides*, Chamomile Sunray and *Pycnosorus globosus*, Drumsticks, have beautiful and abundant flower heads. I suspect we may be heading for an early flower display this spring. If you haven't done so already there is still time to cut back last summer's woody growth and old seed head.

Grevilleas and Correas are putting on a great display right now. *Correa glabra* flowers from May to August with a profusion of lime green flowers. This compact shrub, H 1-2 m, W 2-3 m, with small, glossy, deep green leaves, is drought tolerant and makes a wonderful hedge when clipped. It prefers a sunny, dry, and a well-drained situation, is easy to grown, and better still, it is one of our local natives that will adapt happily to most garden soils.

Here is a small list of collectable seeds for July: *Allocasuarina littoralis*, Black Sheoak, *A. verticillata*, Drooping She oak, Callistemon ssp. Bottlebrush, *Correa alba*, White Correa, *Hakea ssp. Isopogon ssp.* and *Melaleuca ssp*.

And finally, it is Echidna mating season. I saw our little local fellow out and about the vineyard last week, so take care when driving as they can often be seen trying to cross a road.

Reminders, A P S Victoria Diary Dates & Other Events

Thank you

- **For their various contributions of articles, photo's, feedback, proof-reading, hunting up info when asked and general support. A SPECIAL THANK YOU TO: Janice Baker, Neil Humphreys, Ian Julian, Barbara Mau, Victoria Morris, Maureen Runge & Lorraine & Brian Weir**
- **For your messages comments & compliments, A HEARTFELT THANK YOU TO: Jenny Davidson, Claudia James, Graham Oliver, Norbert Ryan & Andrew Robinson :-)**

REMINDER:

APS Victoria Inc & APS Mitchell Inc. membership fees were **due 1st July 2014.**

Single Member

Victorian fee $32.00

Mitchell fee $10.00

Total $42.00

Couple or Family

Victorian fee $35.00

Mitchell fee $12.00

Total $47.00

People who joined at the 2013 Expo pay only Mitchell fee's

Single member $10.00

Couple or Family $12.00

FEES ARE PAYABLE TO A P S MITCHELL Inc. TREASURER BILL BARKER. CHEQUES SHOULD BE MADE PAYABLE TO : APS MITCHELL Inc

A P S VIC DIARY DATES…

July 19 - Friends of Royal Botanic Gardens Cranbourne Talk by Phillip Johnson on 'How to Win "Best in Show" at Chelsea' at Australian Garden Auditorium RBG Cranbourne.

July 26 & 27 - Friends of the Royal Botanic Gardens Cranbourne Winter Plant Sale. Royal Botanic Gardens Cranbourne 10 am - 4 pm.

August 30 - ANPS East Gippsland 'Wattle Day' celebration. 10 am - 12 noon at the Rotunda, Main St Bairnsdale.

September 6 - APS Wilson Park Plant Sale, Wilson Botanic Park, Princes Hwy, Berwick. 9 am - 4 pm.

September 13 & 14 - APS Yarra Yarra Native Plants Expo, Eltham Community & Reception Centre, 801 Main Rd, Eltham. 10 am - 4 pm both days. Melway's 21 J6.

September 20 & 21 - Bendigo Native Plants Group Flower Show. Rotary Gateway Park, High Street, Kangaroo Flat, Bendigo. 10 am - 4:30 pm both days $5 entry (children free).

Committee & Contact Information

AUSTRALIAN PLANTS SOCIETY, MITCHELL GROUP INC.
PO Box 541, Kilmore, Victoria, 3764 No. A0054306V
aps.mitchell@gmail.com

Committee Members

President	(Vacant)	
Vice President	Lorraine Weir	5783 2912
Secretary	Maureen Runge	
Treasurer/Memberships	Bill Barker	5783 3838
Committee: Janice Baker, Neil Humphreys, Barbara Mau, Brian Weir.		
Group Librarian	Barbara Mau	
Plant Sales	Brian & Lorraine Weir	
Newsletter Editor	Jeanine Petts	5785 1434

Newsletter contributions:
Contributions should be sent to Jeanine Petts
Email: wattlegum@southernphone.com.au

Post: PO Box 381, Pyalong Vic 3521

For inclusion in the next Newsletter please forward contributions prior to the first Monday of each month.

Banksia spinulosa Coastal Cushion

By Brian Weir

A great small Banksia for a rockery or perhaps a large pot. Good drainage is again I believe the main trick in growing coastal cushions. Low growing to around 75cm and 1.5 metres wide. The cones grow from about 10-15 cm long & 6cm in diameter with maroon styles. From my observations only, there appears to be more and larger flowers if we receive good mid to late summer rain. Grows from cuttings but I struggle doing them, lose maybe 80-90%

We often have 3-4 rainbow lorikeets, feeding on this bush. They never cause any damage what so ever so we all get on fine.

Banksia spinulosa
Costal Cushion

Photos: Brian Weir