

AUSTRALIAN PLANTS SOCIETY

Southern Highlands Group **SOCIETY** *...your local native garden club*

Thursday June 1st – Talk by Dr Alan Stiles on the Robertson Rain Forest

July – Guided tour of Mount Annan Botanic Gardens' Herbarium AND Plant Bank – date and time to be confirmed.

Southern Highlands

SHAPS Committee:

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Jen Slattery

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Kim Zegenhagen

Treasurer

John Desmond

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Trisha Arbib

Communications Officer

Jen Slattery

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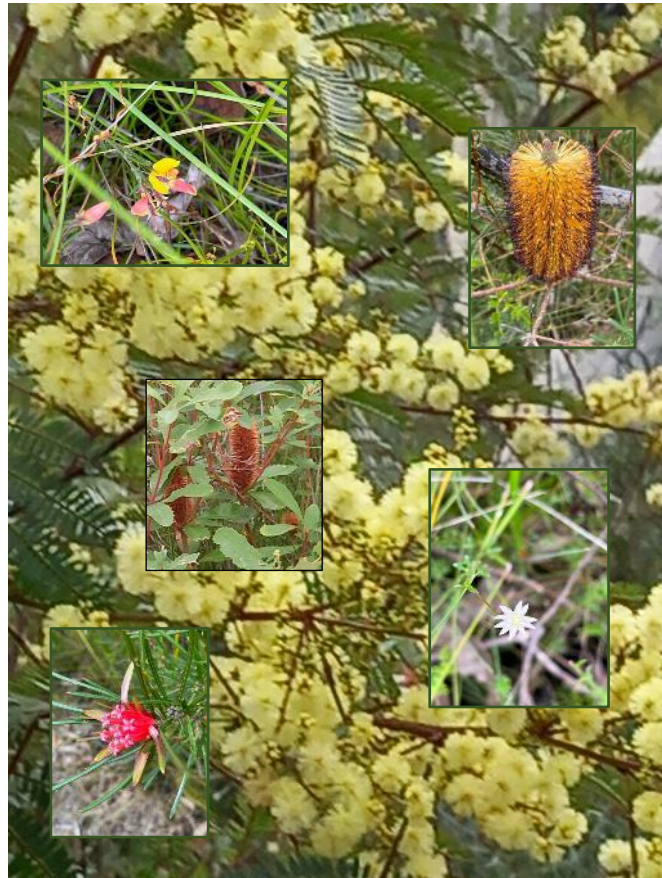
Paul Osborne

APS Committee

southernhighlandsaps@gmail.com

www.austplants.com.au/

Southern-Highlands



It was so exciting to walk in the bush yesterday, mid May, and see so many flowers compared to a month ago. This was in the Bundanoon end of the Moreton National Park. The first surprise was to see several varieties of wattle. I can't help associating wattle with spring. But then so much more. It had come alive.



Upcoming Program

	General Meetings 1st Thursday 2pm June, August, October, at Moss Vale CWA, 66 Elizabeth Street, Moss Vale	Outings 1st Thursday in next month after general meeting	Committee Meeting 2nd Monday of month
June	Thursday 1 st June - Talk by Dr Alan Stiles on 'Robertson Rain Forest' at 2pm CWA		12 th June
July		July - The date and time to be confirmed - Guided tour of Herbarium AND Plant Bank at Mt Annan Botanical Gardens for \$14 per person	10 th July
August	Thursday 3 rd August conversation with Frances Simons on 'Biodiversity: The Farmer's Dilemma' at 2pm CWA		14 th August
September		Saturday 9 th September, Visit to Illawarra Grevillea Park 11am	11 th September
October	Thursday 5 th October Jen Slattery talk on grasses		9 th October
November		24-27th November BioBlitz Medway	13 th November
December		Thursday 7 th December Xmas party	11 th December

Red-Bellied Black Snake

Fran Mullard

Red-bellied Black Snake

PSEUDECHIS PORPHYRIACUS

Family Elapidae



Our 8-hectare property in Devon Rd, Exeter, is part of the Southern Highlands Shale Woodlands in the Sydney Basin Bioregion, classified as an Endangered Ecological Community occurring on clay soils on Wianamatta Shale.

We have an abundance of large eucalypts and an Ecological Survey conducted in 2012 identified 68 endemic plant species. Since then native plantings have increased, now numbering some 500 plants representing 230 different species.



Basking on the mulch pile where it lived. Dec. 2014

There are two dams on the property, which are inhabited by healthy frog populations, and a creek which runs across the lower end of the block. There is also an ephemeral creek which occasionally runs from the top of the block to join up with the other.

So, as red-bellied black snakes are typically located within 100 metres of permanent water sources, and frogs are their food of choice, it comes as no surprise that we have them in our garden. They also prey on rodents and small mammals, small reptiles and fish. Everything they need is right here!

Red-bellied snakes are the most encountered snakes in eastern Australia. They love to bask in sunny spots in the cool of the morning and rest in the shade in the heat of the day. When not basking they

may be found beneath timber and rocks, or down holes or burrows, or coiled up in comfort in a tussock.

They are generally solitary and diurnal, they don't hibernate fully and prefer to hibernate in groups of up to six and are often seen on sunny, winter days, recharging their batteries on a warm surface.



Creche Mar 2019 - between the house and the machinery shed; note the different shades as they emerged a couple of days apart; could be from different males

They are terrestrial (land-dwelling), precocial (hatched and born in an advanced state, therefore enabling them to fend for themselves independently almost immediately), promiscuous (both

sexes have multiple partners) and natatorial, (able to swim and to remain submerged for 20 minutes or so). No interest is taken in the rearing of the snakelets by either parent.

Females may breed at 31 months of age, males even younger. During the breeding season, males often engage in ritualised combat of 2 to 30 minutes duration. They do not bite each other but engage in head-pushing contests, where each combatant endeavours to push its opponent's head down. Reproduction occurs during October and November and pregnancy duration is about 14 weeks and as many as 8-14 snakelets may be carried by each female.

Red-bellied black snakes, especially juveniles, do have predators: humans, feral cats, kookaburras and other carnivorous birds, and red-backed spiders (surprisingly!).

In more northern areas the cane toad is an indirect killer of the snakes. When the snakes attempt to consume them, the toads' toxins are powerful enough to kill them.

Which brings us to the topic of venom. The venom of these snakes is towards the lower end of the spectrum, however if untreated the bite is painful and can cause very unpleasant symptoms...one or more of the following: muscular pain, abdominal pain, bleeding, nausea/vomiting sweating or headache. Victims must receive medical treatment as soon as possible. There have been no confirmed human deaths caused by these snakes, but on average, the red-bellied black is responsible for about 35 bites a year.

It needs to be said that these snakes are very timid. They are not aggressive, typically withdrawing when approached, preferring to slither away to avoid confrontation. If provoked they recoil into a striking stance and may bite as a last resort.

Although this species is not considered endangered, all Australian snakes are a protected group under the Wildlife act of 1975. Attempting to kill a snake is illegal and more likely to cause injury to the human.

I believe the message is that we need to be aware that snakes are present in our environment...or is it that we are, more than ever, present in theirs?

THE SNAKE Ian Mudie 1911-1976

*“Suddenly the grass before my
feet
shakes and becomes alive
The Snake
twists almost leaps
graceful even in terror
smoothness looping back over
smoothness
slithers away, disappears
And the grass is again still.*

*And surely, by whatever means
of communication
is available to Snakes,
the word is passed;
Hey, I just met a man, a monster
too;
must have been, oh, seven feet
tall
So keep away from the long
grass,
it's dangerous there.”*



iNaturalist

Jen Slattery



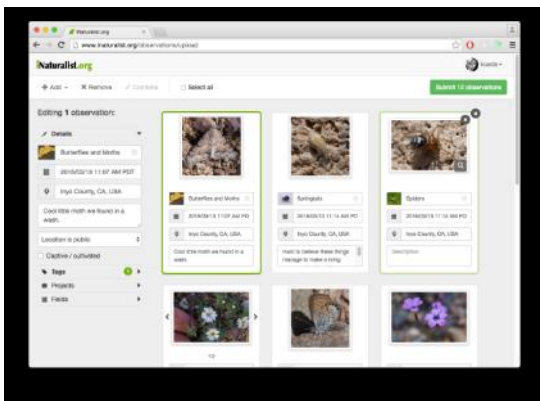
Our April meeting saw Jen Slattery present information to members on using iNaturalist plus a quick overview of Bioblitz. iNaturalist topics, hints and tips included:

What is iNaturalist: An online social network of people sharing biodiversity information to help each other learn about nature. You do need an iNaturalist Account – email, username, and password to participate.

What is iNaturalist used for: Recording your own observations of individual wild living things - fauna, flora, fungi. Includes tracks, scats, nests or have just died. Record what you saw, when and where you saw it.

iNaturalist is primarily about observing wild organisms and creatures. If you upload captive or planted things like house or garden plants, zoo animals, or pets, mark them as captive / cultivated. That helps make sure the range maps only represent wild populations.

Recording observations: Take photos on your camera, **upload** them later via computer **to the website** <https://inaturalist.ala.org.au/> (my personal preference) **or use the app**. The automated species search provides Id suggestions.



DOWNLOAD iNATURALIST
Download the free app from your app store

 SEE IT Find any wild plant, animal, or fungi	 SNAP IT Take a photo	 SHARE IT Share your photo on the iNaturalist app
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OR

(Images sourced from iNaturalist)

Multiple observations: One observation per species, per time / date.



If you have a photo with multiple species upload a separate observation for each species using the same photo. E.g. using the photo below upload one for the callistemon and one for the New Holland honeyeater

(Credit: Rivers of Carbon. Adobe Stock)

If you take a photo of the same thing on different days e.g. same plant in flower, then on a later date in seed, upload a separate observation for each day. You can link observations using the web site.

Location Information: Use geo tagged photos or manually add the location.

- **Open** Anyone can see the location info.
- **Obscured** Random spot in area (.02 of latitude x 0.2 longitude) around location. Use it when you don't want people to know the exact location eg it's at your home.
- **Private** Totally blocks the location, except timezone if photo is timestamped.
- **Taxon Geoprivacy** System obscures location of species that have a conservation status e.g. threatened species.

Observation Types: Non verifiable or verifiable.

- **Casual** - Non verifiable observation i.e. Captive or cultivated, no photo or audio attached, no date, no location, no genus information. Not added to partner databases eg ALA.
- **Needs Identification** - Verifiable but needs 2 people to agree the ID to become research grade.
- **Verifiable observation 'Research Grade'** - ID agreed. Shared with partners such as ALA.

What happens to my data?

- Added to Global iNaturalist database.
- Shared with Global Biodiversity Information Facility GBIF. (A centralised resource of information from museums all around the world)
- Shared with Atlas of Living Australia ALA. (Australia's national biodiversity database)



Uploading your observations – Android and Apple Apps Data Usage

- Auto upload automatically uploads observation but can use loads of mobile data.
- You can turn it off and upload later - saves data. Do this in app settings - Settings Tab (Android) or Me Tab (Apple). Upload when you've got WIFI.

Taking Photos

Photograph key features to help with identification.

Grasses: seed heads, base of the plant, where the blades intersect the stem, and individual seeds if you can.

Other plants and trees: leaves, buds, flowers, fruit, bark and overall form.

(Credit Jen Slattery. Taken on our March Mt Alexandra Bushwalk)



Fungi: fruiting body from above, side-on, and below - include the gills. Camera selfie mode or a small mirror is helpful for photographing gills.

Animals: Overall form, head, body, colour patterns, beak shape for birds, shell shape for turtles, scats, tracks.

Insects: Dorsal (top) and ventral (underside). Pollinating insects may be more still as they are often not overly interested in anything approaching them.

Geotagging Photos

Smartphones can capture the photo date, time and GPS location (if you allow it). Use device settings to allow the camera and iNaturalist app to access your location.

Geotagging saves you needing to manually enter the data when uploading your observations.

You may want to turn off or restrict your camera location and app access if you share photos on social media, emails etc as it can give your exact location when you post it on that social media app.

iNaturalist Worldwide <https://www.inaturalist.org/>

iNaturalist Australian Focus <https://inaturalist.ala.org.au/>



iNaturalist FAQ / Help /Blog etc has helpful info. Check the date as improvements may have been made. <https://inaturalist.ala.org.au/pages/help>

Or just ask other SHAPS members or email us southernhighlandsaps@gmail.com we'll do our best to find out.



Seek By iNaturalist



(Image Sourced from Seek by iNaturalist)

Found a mushroom, flower, or bug, and not sure what it is? Open the Seek camera to see if it knows!

Drawing from millions of wildlife observations on iNaturalist, Seek shows you lists of commonly recorded insects, birds, plants, amphibians, and more in your area.

Download the app. No registration is involved, and no user data is collected, so it's suitable for children to use.

https://www.inaturalist.org/pages/seek_app



Bioblitz

(Image Sourced from Great Southern Bioblitz)



Bioblitz is an intense collection of observations at a site with the observations submitted using iNaturalist or other apps / platforms used to photograph and identify fauna, flora, and fungi.

An example is the **Great Southern BioBlitz** which we undertook at Medway Reserve last year, and are **planning to do again later this year**.

Participation options for our SHAPS Bioblitzes

1. APS Activity Leader – Planning, WHS etc.
2. Group marshall - Take lead or rear of the group (so we don't lose people).
3. Take photos and submit observations to iNaturalist.
4. Just take photos - give them to others to submit to iNaturalist.
5. Help look for living things - things can be easily overlooked, missed.
6. Just enjoy a bush walk.

Combined Groups APS Garden Visit to the Mullards

As far as I know this was the first time that SHAPS had organised a garden visit at the request of another APS group, in this case the Australian Native Plants Society, Canberra Region (ANPSC). Twenty-two of their members came and at least 30 of ours. They obviously enjoyed the splendid morning tea on arrival, Bill's talk, and a walk exploring Bill and Fran's extensive Exeter property.



Attentive audience to Bill's account of the history of his and Fran's garden. Photo Harper Wright

Some of what Bill had to tell them:

We purchased our block of 25 acres (10ha) in 1976, built and moved into our partly completed home in 1979 and called the property 'Trewynd' (trees and wind). Our portion of the block is now 8ha.

The land had been heavily grazed by cattle and sheep and had been extensively cleared during subdivision as evidenced by the numerous windrows of partially burnt timber. Fortunately, as our preference was for native vegetation, we (were able to choose a block with some remaining old growth trees, particularly on the steeper slopes.

After returning from an 11-year hiatus in Sydney in 2006 we became more serious about regeneration of the land and planting native species. As there had been no cattle on the land since 1995 regeneration was well on the way including, unfortunately, a resurgence of blackberry which must be dealt with on a continuing basis. At this time, we entered the Vegetation Conservation Program (now Land for Wildlife) with Wingecarribee Shire Council.

The predominant species evident when we purchased the land were *Eucalyptus quadrangulate* (white-topped box) on the North facing slopes, *E. glodoidea* (white stringybark) on the south facing slopes and *E. obliqua* (messmate) along the water courses, with a groundcover of *Poa labillardieri* (silver tussock) and a mixture of other native and introduced grasses.

Now a well-established understorey is also present, consisting mainly of *Lomandra longifolia* (spiny-headed mat-rush), *L. filiformis* wattle mat-rush), *L. multiflora* (many-flowered mat-rush), *Acacia melanoxylon* (blackwood) and *Hardenbergia violacea* (purple coral pea). There are also some pockets of *Indigofera australis* (Australian indigo) regenerating.

In 2012 we had an Ecological Survey carried out which identified 68 endemic plant species on the property which is part of the Southern Highlands Shale Woodlands in the Sydney Basin Bioregion classified as an Endangered Ecological Community occurring on clay soils on Wianamatta Shale.

Southern Highlands Botanic Gardens – Autumn Gardens Weekend and Plant Fair

1. Our Stall

Photos Marjorie Lobban and Louise Egerton

1.



On the weekend of 22nd and 23rd April we shared an information tent with the Bowral and the Mittagong Garden Clubs, the Rose Society and the Orchid Society. We were pleased to be placed much more favourably and visibly than last year.

Our distinctive A-frame with its image of white waratahs was put to good use again. It really attracts attention, as did Marjorie's large flowered form of *Crocea saligna* in a pot. And we had plenty of our flyers to hand out.

It was a good opportunity to chat to people about Australian native plants and hopefully attract new members. Memorable was the bus load of garden enthusiasts from New England.

We were not there to sell plants but to engage. So, it was good to see Native Grace, the native plant nursery from Robertson there doing good business. And they sold several Croweas just like Marjorie's!



2. Visits to Sarah and Geoff Cains' native plant garden Text and photos by Sarah Cains

Geoff and I have been married for 53 years and when we counted up, found that this is the seventh garden we have created around houses where we've lived. This garden was (mostly) built by we two over 75 year olds and we maintain it with no hired help.

In April we were asked by two groups to open our garden to visitors. The first opening was for The National Trust and the second for the Southern Highlands Botanic Garden.

During the SHBG weekend, the garden was visited by around 800 people over two days. We don't yet have numbers for the National Trust Day (just the Saturday) but that was a busy one too.



Almost every visitor expressed huge enthusiasm for native plants and the idea of doing things differently in gardens. In particular, the little urban forest which forms our back garden, (the block is 820sq m) delighted and inspired visitors. The words most often heard were 'calm' 'serene' and 'restful'. In addition to the stunning and simple beauty of the multi-trunked snow gums (Euc. gregsoniana), that could be attributed to the obvious lack of need for power tools and the appearance of 'low maintenance' (though in truth, there is always the weeding!)

As we all know, plants have endured extraordinarily hostile conditions over the last three summers. Most natives hate wet feet and they've been living in mud for three years! The lack of sunlight during those wet years has been an additional problem. But the plants have proved to be wonderfully forgiving. Though, like everyone else, we've had losses, many plants have endured the wet and sunless conditions and marched bravely onwards. Now the rain has hit pause and the sun has come out, a beautiful display of texture, colour, variety and unity is revealing itself slowly.

In addition to the little snow gums, the most admired plant in the garden is undoubtedly the Acacia howittii cv which tumbles in spectacular fashion out of our 'wall garden' at the front of the house. Actually, we designed our 'wall garden' specifically to grow that plant! We've grown it before and knew it would be a wonderful 'show-off' to seduce visitors and convince them of the beauty and worth of Aussie plants as garden plants



The message? "You can have a beautiful garden with natives and will benefit the planet and all its inhabitants as well as enjoying yourself and your plants."

We are the gardeners but the stars are Australian native plants - and they won some hearts!

Editor: A fantastic show piece for Australian native plants. An enormous number of SHAPS flyers were given out over the weekend to so many enthusiastic garden visitors. And Sarah encouraged out-of-district visitors to look online for details of their local group.

March and April – Fabulous Flowers

Harper Wright

I'm hoping that this will be a regular feature. Editor



Rhododendron viriosum, Mt Annan



Eremophila alternifolia, Burradoo



Geebungs, Mt Alexandra, Mittagong (common name in WA and SA: snottygobbles)



Grevillea rhyolitica, Deua Flame, Burradoo garden

Over the hedge with Erica and Kim

Erica Rink and Kim Zegenhagen

Native Grasses



In previous articles we have discussed ground cover plants. Now we discuss native grasses. Before our devoted readers panic let us make it perfectly clear - native grasses do not cause hay fever. You will get hay fever from non-native grasses, but never the native variety.

Some nurseries will tell you that Lomandra are grasses. Don't ever say this to a serious grass botanist. Lomandra are more closely related to asparagus than grass. They can be classified as "grass type plants". They are not botanically grass.

Why plant native grasses? Because native animals, birds and insects love them. Good reason! Now here are some more reasons:

- require less maintenance.
- don't need as much water and fertiliser as introduced plants.
- generally require less pruning.
- hardier to pests and diseases.
- usually more drought and frost tolerant than introduced plants.
- add textural interest to yards.

Weeping Rice Grass – *Microlaena Stipoides*



Weeping rice grass is a hardy, low-growing native grass that can make for a great lawn, especially in cool and semi-shaded spots. It is a very water-wise species that features slender lime-green leaves and slender stems with seeds.

It is slow growing but once established this grass impresses easily in gardens.

Tassel Cord Rush – *Baloskion Tetraphyllum*



Boasting bright green foliage with feathered tips. This species is one of the more ornamental Australian native grasses. It will grow in dense clumps to a height of around 1.5 metres, offering many landscaping applications. The foliage can turn reddish brown in spring and the flowering heads are produced in summer. This grass will thrive in shady spots in moist soil. Once established, it will require very little maintenance.

Kangaroo Grass – *Themeda Triandra*



A great native ornamental grass. It produces long stems and seed pods with a strong tussock habit. It grows up to 1.5 metres tall and half a metre wide. It starts grey-green and brightens to an orangey-brown in the summer. Perfect for mass plantings, this species is drought tolerant and a great grass for attracting native butterflies, birds and insects to the garden.

We will discuss this topic in further detail in the next issue. We hope this has given you the incentive to plant native grasses.

APS – Health and Safety Policy

John Desmond

Background

APS NSW is a volunteer organisation with a state office and 18 district groups which vary widely in size, level, and type of activity. Because it is a not-for-profit organisation and does not pay wages, salaries, or other income it is not bound by the provisions of the WHS (Work, Health and Safety) Act. However, for the benefit of members and to avoid any issues with insurance the Board has committed to adopting a best practice approach to duty of care and complying with WHS laws as appropriate. To this end a comprehensive Health and Safety policy and procedures have been developed by the Board and are in the process of being implemented across all groups and activities.

The policies and procedures cover 4 areas:

1. Take responsibility and consult

All members should take responsibility for their own safety and wellbeing. Members and volunteers need to be consulted on safety matters that affect them, and every area of the Society should have an action plan to implement these safety measures.

2. Manage risks and report

This requires a systematic process to identify hazards, assess the risks and identify how the risks are to be managed. Meetings and indoor activities can involve hazards such as lifting heavy objects, slips and falls, burns and kitchen and food preparation issues. Garden visits and bushwalks could involve trips and falls, heat and sun exposure, exhaustion, falling branches, animal bites or stings, or even getting lost. In addition, some groups are involved in nursery activities which may also involve dust inhalation, tool or machinery injuries or chemical hazards. To assess the level of risk a likelihood and severity matrix is used. Many society activities are carried out at premises owned by councils or other organisations and in these cases the policies and procedures of those organisations will need to be followed.

Activity leaders are responsible for developing risk management plans, and draft plans for many types of activities are available on the APS website. A critical part of the policy is that if a hazard is identified or an incident or an injury occurs these must be reported as soon as possible.

3. Induction and training

All members need to be aware of safety procedures and volunteers for specific roles will have training briefings available, although these are still under development. A training register is managed by APS NSW with the support of the district groups.

4. A safe environment

Emergency procedures are required at all locations where activities are held. This will involve identification of emergencies which may occur, planned responses, emergency contacts and evacuation procedures. Templates for development of emergency plans are on the APS NSW website.

First aid will also need to be available at all activities. This will involve a readily available first aid kit and first aiders holding a recognised first aid qualification.

Southern Highlands District Group

This group fully supports the health and safety initiatives and procedures are being implemented at all of our activities. We would encourage all members to become familiar with the procedures at our meeting and outdoor activities. At meetings in the CWA hall committee members will prepare the hall but it is important that all members sign in on entry. At garden visits and outdoor activities specific plans will be prepared beforehand and detailed instructions provided to members by email prior to the activity or on site at the commencement of activities.

A Fine Tree – *Melaleuca linariifolia*

Paul Osborne

A small spreading tree lives alone on a stretch of lawn between pathways.



It can't be missed with its aged, strong and gnarly trunks supporting a youthful crown of foliage. This *Melaleuca linariifolia* has grown for 150 years away from home in NSW or Qld.

Here in the Royal Botanical Gardens, Melbourne is a great place to see such mature trees from Australia and around the world.

Encountering this individual sets you back with surprise.

“Snow in Summer” can be seen in the bush and is so widely and well used elsewhere in gardens and all styles of landscaping that they could be overlooked, apart from when they burst into flower each year. Passing them along the roadsides and highways it doesn't necessarily come to mind that these melaleucas could be ancient one day.

At least they have a loved and proud ancestor thriving far away.



Snippets

I was fascinated to see these two very different Acacia flower buds recently. Or are they actually the same at different stages? It just shows how I haven't been looking before. It makes me wonder what the other buds of wattles look like. I'll be on the lookout now as they come into flower. *Editor*



Acacia iteaphylla, Flinders Ranges wattle.
Photo taken in Bill and Fran Mollison's garden by Harper Wright



Acacia terminalis, Sunshine wattle,

Many thanks to contributors Fran Mullard, Jen Slattery, Marjorie Lobban, Louise Egerton, Sarah Cains, Charles Harper Wright, Erica Rink, Kim Zegenhagen, John Desmond and Paul Osborne. Wonderful!

