

AUSTRALIAN PLANTS SOCIETY

Southern Highlands Group

...your local native garden club

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Bush fires dominated our thoughts and beings in the Southern Highlands, as in much of Australia, over the first few months of 2020. Even some time after the threat had gone with the welcome rain, friends coming together have had the need to share their experiences, the night they evacuated, the time the fire got close, and in some tragic circumstances in the Southern Highlands, when their house burnt down. But this striking photo is of regeneration of devastated bush, less than 2 months after it was burnt. The photo was taken in Teudts Road, Bundanoon by Nathan Cady.

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Snap Send Solve free app

The Next Diary Dates

Saturday 21st March – First quarterly gathering of the NSW APS at Cherrybrook is CANCELLED DUE TO THE CORONAVIRUS. We are sorry to be missing the scheduled talk there on cottage gardens by Kris Gow and Sarah Cains.

Thursday 2nd April – Moss Vale CWA rooms at 2pm. **Peter Gray**, president of the Bundanoon Photography Group will help us to **take better photos** using our smart phones. Some of the content will involve simple photographic knowledge which no one can escape from, professionals and amateurs alike, but it will be kept simple. There will be plenty of time to ask questions after his talk.



Tuesday, 14 April, 10am Propagation Workshop: at Bill and Fran Mullard's, 15 Devon Rd., Exeter.

This is a fantastic opportunity to learn or improve a skill, and by doing so to contribute to the coffers of our group. It gives a great feeling of satisfaction to successfully create new plants.

To ensure we can plan in advance, could you please register your intention to attend this workshop, at the next meeting. **Please note the propagation workshop starts at 10 am.** Kris or Kay will tell us at the next, April, general meeting what to bring.

Thursday 7th May – Visit to member Robyn Kremer's garden. [The visit to her garden in March was cancelled due to rain]. 26 Payten Street, Mittagong at 2pm. Robyn is kindly providing tea so please bring a mug.

Program for 2020

You are welcome to bring a friend to enjoy the talks and outings. Any member is welcome to attend committee meetings.

N.B. Planning this far ahead means that the odd detail may change but the dates will mostly stay the same. Your newsletter or emails will keep you posted on further details, on meetings or outings that need confirming, and any changes. Newsletters are published mid-month: in January, March, May, July, September and November. Please share this newsletter with anyone who might be interested.

Provisional Program

Date	General Meetings	Outings	Committee Meetings
2020	<i>1st Thursday of the month at 2pm Feb. April, June, August, Oct, Nov. at the CWA rooms, Elizabeth Street, Moss Vale</i>	<i>1st Thursday in the month following the CWA General Meeting. 2pm unless otherwise advised</i>	<i>2nd Tuesday of month at 2pm</i>
April	2 nd April Peter Gray on improving our photography using our smart phones	Tuesday 14 th April propagation workshop at Bill Mullard's 10am. 15 Devon Road, Exeter. Reservation essential – confirm at the April meeting.	14 th April Bill Mullard's 2pm
May		7 th May Visit to member Robyn Kremer's garden 2pm, 26 Payten Street, Mittagong	12 th May Erica Rink's
June	4 th June A speaker from WSC on Nature Map app TBC		9 th June John Desmond's
July		2 nd July Propagation with Jenn Slattery at WSC depot TBC	14 th July Kim Zegenhagen's
Aug	6 th August Weeds with Alicia Kaylock from WSC		11 th August Kay Fintan's
Sept		3 rd Sept Sue Stewart's native flower farm "Grow Wild"	15 th Sept Trisha Arbib's
Oct	1 st October Peter Lach-Newinsky on native plants that attract insects		13 th Oct
Nov	5 th November AGM + speaker	Weekend of 14 th and 15 th November hosting the NSW APS get together	10 th Nov
Dec		Sunday 6 th December Xmas party	

Snippets

Hibiscus trionum



This beautiful flower attracted attention on the January Plant Table. Its centre is a very dark maroon, almost black. It is a soft stemmed shrubby annual, about 1 metre tall, with attractive leaves, and with a multitude of flowers, buds and seed pods being on the plant at the same time. The summer flowers are short lived but more keep appearing. Prefers sun, and frost hardy. Not fussy as to soils.

It disappeared from one corner of the garden, but after the drought and the rain has popped up in great quantity at least 20 metres away. Wonderful.

I've always known it as a native Hibiscus, *H. trionum*. But after just now looking up Wrigley and Fagg's *Australian Native Plants* this identification is in doubt. It may be *Hibiscus tridactylites*, with which it has been confused. And *H. trionum* is thought to have been introduced.

I am more than happy to share the seeds, whatever this gorgeous plant is. *Trisha Arbib*

The Southern Highlands Nature Map Workshops

It is worth subscribing to the free Wingecarribee Web newsletter if you don't already. It is produced by the Environment and Sustainability team at Wingecarribee Shire Council and is supported by Council's Environment Levy. It mentions **free workshops** in March on using the **Southern Highlands Nature Map**, a biodiversity tool launched last October. This can be used to capture records of all living things via photos and sound recording. Google [Southern Highlands Nature Map](#) to see images of plants including eucalypts, daisies and grasses, and other life forms. Those members with very good botanical knowledge and ID skills may want to think about becoming a moderator says Karen Guymer of the Natural Resources Team at Council. Ring 4868 0888 for more information.

Workshops will be held at the Volunteer Centre Queen St Moss Vale at 4 - 5 pm on 19, 24 and 31 March. No bookings required. You will learn how to use the website and what an expert moderator does. Simply turn up 5 mins before start time and bring along your smartphone or other device if you wish.

Important News on Proposed Local Native Habitat Corridors

Clive West

Habitat Corridors and Re-vegetation of Wingecarribee River bank adjacent to the New Berrima Austral shale quarry

For the last couple of years Clive West, as a community representative on the Austral community consultative committee, has been pressing Austral to re-vegetate the denuded riverbank that runs alongside its new shale quarry in the "Enterprise Corridor" near New Berrima. Finally, in December last year, Austral's head office authorized negotiations with Clive and Greening Australia to undertake the project. We'll keep you posted, because the native plant project will be calling for volunteers to undertake the planting when the tubestock is big enough to plant out. In the meanwhile, Austral is preparing its Development Application for a new brickworks to go on the land

near the shale quarry (the Bowral brickworks is to be closed in 2 or 3 years' time). This presents an opportunity to make it a condition of consent that Austral undertake native plantings around the perimeter of the site, to protect the wildlife in the vicinity of the river and to screen dust and noise for the residents of New Berrima.

Clive has a rough draft of "Scope of Works" for the riverbank project if any readers are interested. We are looking for assistance with propagation and, when the time comes, volunteers for planting. I see the planting stage as being at least 2 years away. But APS members might be interested in the project. The revegetation of the riverbank is part of the Wall to Wollondilly project (Greening Australia). We hope to extend the platypus habitat from the New Berrima weir to Burradoo. *Interested readers please contact Clive West at savwest@bigpond.com*

On a related project, Clive is also on the Boral Community Liaison Committee and has been lobbying Boral to plant a major native habitat corridor along the entire length of their southern boundary. This corridor would link the Oldbury Creek riparian zone with the Stony Creek riparian zone, which in turn will link through to the Stony Creek riparian zone on the Austral land on the other side of Berrima Road. All of these corridors will link back to the Wingecarribee River. Boral has indicated that it is very supportive of the idea, but requires more technical details of the species of plants to be used and evidence from research papers that such corridors have ecological value. They have also indicated that they would like to use the project to obtain offset credits. This latter possibility offers a huge potential incentive for future habitat corridors on industrial land. Again, we'll keep you posted, because as a community initiative we will need to call on our community for support in propagation and planting.

Council + Community: an Effective Partnership in Hornsby

Pam Tippett



Emma talking to an attentive group

The guest speaker at APS meeting 6th February 2020 was Emma Heyde.

Our guest speaker Emma Heyde, who is a Greens Councillor in Hornsby Shire, has a long standing connection with Wingecarribee Shire having spent her teenage years here before her university studies. Emma has a lifelong interest in plants - her talk was on the value of caring for and propagating plants locally in an era of climate crisis. She covered the benefits

of trees in the urban environment, different ways to educate people about these benefits, what is being done in Hornsby Shire and other areas, how to involve the community, the problems encountered and how these problems are being addressed.

As the climate is warming, temperatures are becoming more extreme - 45 degrees can lead to the death of trees. A risk of increasing urbanisation and development is that buildings without judicious tree plantings can create a desert: a heat sink which exaggerates these temperature extremes. This

impacts on the quality of life in these areas: people drive more, leading to more traffic congestion, pollution, need for car parking spaces and less interaction between residents.

There is a heat sensor project being carried out in Penrith (which has just one Bureau of Meteorology weather station at Penrith Lakes). 120 sensors are to be deployed over summer all around Penrith and will record air temperatures every 10 minutes. This will provide Council with scientific data which will enable them to advise State Government, builders and developers on minimising heat creation during extreme summer weather as well as identifying areas to prioritise street tree planting.

As councils have become more aware of the benefits of trees in the urban environment (a CSIRO study in a street in Tuggeranong in the ACT found a 17 degree difference in shady areas -ie with trees, compared with non-shady areas) efforts are being made to moderate the 'desert' effect of treeless streets by conducting tree planting programmes to provide shade and cool streets. Both Penrith and Blacktown have projects underway which are involving residents in the entire process, starting with an education programme to teach people the benefits of trees: habitat and food for birds, native animals and insects, amenity and shade, fresh air as the leaves filter particulates reducing pollution, reducing water runoff and erosion, shading asphalt and buildings all of which far outweigh some people's dislike of perceived mess and danger. (An interesting statistic: a single tree can remove 21kg carbon dioxide per year and produce enough oxygen for two people!) The community involvement is essential: when people have a sense of shared ownership and have selected the trees they want and planted them, they are more likely to care about the trees' survival.

Hornsby is following suit. It is a 'Bushland Shire', 70% is bush, over 700 square km. 15,000 trees are lost each year to natural attrition, increased urbanisation and development and the use of the 10/50 ruling introduced in 2014 where trees can be removed without council approval. 45,000 trees have already been planted and there is a community native street tree planting project underway with 25,000 trees to be planted by the end of 2020. There have been some setbacks with the drought claiming some victims and some not being watered by residents. The council water trucks water three times over summer, and care instructions are left in letterboxes.

The community tree planting has been very successful, with planting days very well attended. They have already passed the 10,000th tree (a Turpentine).

Hornsby has a flourishing community nursery run by Ross, the legendary propagator extraordinaire. With his team of 2 staff and 40 volunteers, Ross and the nursery give away 45,000 trees each year. The nursery has a large collection of local seeds from rare, endangered and common plants with ten years' supply stored in a refrigerator. They have a new glass house with misters which can be operated remotely during hot weather. The plants propagated go to schools, give aways, new plantings and replanting. One of their specialities is *Blandfordia sp* (Christmas Bells).

There have been studies of the well-being of people connected to green space, the natural world, their own and community gardens - it is good for you! Emma's talk was inspiring and her enthusiasm and optimism contagious. She finished with a quote from Rebecca Solnit -

'Inside the word emergency is emerge; from emergency new things come forth. The old certainties are crumbling fast but danger and possibilities are sisters.'

Learning to Love Bugs

Fran Mullard

Recently I enjoyed coffee in Bundanoon with some members of our APS group and Bundanoon resident, Ann McCarter. Six years ago, Ann and her husband Bob spent some time in France and it was while touring around the countryside that Ann became very curious about the intriguing structures which she observed in many gardens.

Ann photographed one of the structures and the information plaque beside it, which espoused a “new philosophy” ...one of organic gardening and the role that insects can play in it.



Insect/bee hotel photographed by Ann McCarter in France. On the right hand side of the hotel is the information plaque shown here on the right. Note the house tiles at the bottom.

*See footnote for translation of *une philosophie*

Une philosophie nouvelle...

Mis à part quelques rares exceptions (la coccinelle), les insectes font généralement peur, au point de provoquer chez certains de véritables phobies. Pourtant leur utilité est grande et leur observation passionnante. La peur de l'insecte est d'abord culturelle, on ne nous apprend pas à aimer les insectes.

D'une façon générale, les insectes se contentent de peu pour s'abriter et n'ont pas besoin d'abris spécifique. Un tas de pierre, de bois ou de planche et même de feuille mortes, une souche, une vieille tuile, un trou dans un mur, des vieux volets, un grenier, les nichoirs à oiseaux.

D'autant que nombre d'entre nous ont tout intérêt à inviter certains insectes chez eux : le jardinier bio renforce utilement les populations de coccinelles ou de chrysopes pour lutter contre les invasions de pucerons ; l'arboriculteur invite bourdons et abeilles, indispensable à la pollinisation de ses fruitiers. Cela n'empêche pas que chacun reste chez soi, et là, les abris ont un rôle important à jouer, en fixant les insectes là où on le souhaite (loin des aires de jeux des enfants et de la cuisines, les guêpes !).

En exemple quelques auxiliaires et leurs rôles :

- les araignées, chrysopes, coccinelles, forficules, hyménoptères, hétéroptères et les syrphes mangent pucerons et acariens.
- les carabes, staphylins mangent les limaces et chenilles.

Ann and Bob now have two such structures in their garden. They were, of course, insect/bee hotels and they have become ubiquitous as more people become aware of the benefits of attracting useful insects to assist in organic and sustainable gardening.



Ann and Bob's hotel

The insects that the world cannot do without are the pollinators; mainly the bees. Without the pollinators the world's food supplies are under threat and, unfortunately, honeybee populations worldwide are under serious attack from the Varroa Mite (*varroa destructor*).

The Varroa Mite was first discovered in South East Asia in the early 1900's and has led to the virtual annihilation of many feral bee colonies across the world. They are parasitic mites that feed on the bodily fluids of adult, pupal and larval bees. They also carry many viruses which are dangerous to European bees.

Researchers in Australia are studying Australian native bees, which seem to be resistant to the mite and may possibly be a replacement for the European bee should the mite reach our shores. Australia is the only continent still unaffected by the Varroa Mite.

There are over 1600 identified species of the mostly solitary Australian indigenous bees, varying in size from 2mm to 24 mm. They are very important for biodiversity and the pollination of native flora. They are also very effective pollinators of many agricultural crop species, including citrus, strawberries, blueberries, mangoes and more. In some cases, smaller, stingless bees are superior to honeybees as pollinators because they use a range of pollinating techniques, “buzz pollination” being one of them.

Buzz Pollination (AKA Sonication) is when the pollinator has to literally shake the pollen out of the flower. In certain plants the pollen is held within tight tubes. During buzz pollination, bees rapidly contract their indirect flight muscles, producing strong vibrations that forcibly expel the pollen from the flower. Some plants requiring this technique are blueberries, tomatoes, aubergines and kiwifruit, There are many more.

So, how can we help these wonderful little insects, I hear you ask? We can provide them with a comfortable hotel in which to stay and lay eggs, along with a supportive and attractive “restaurant strip” to fortify them!

So, if you decide to construct a bee/insect hotel, here are some tips.

Choose an environment which will enhance success and provide protection from the elements.

Orientate your bee hotel somewhere between north and east in a sunny to semi-shaded position. It needs to be elevated to a height somewhere between your eye and your knee.

Nesting habitats made from natural material are the best. Simple options include seedpods; coir matting; bricks with holes in them (seal one end of the hole with mud or clay); drilling holes of different sizes into logs; lengths (at least 15cm) of different diameter bamboo tubes. When providing tubular accommodation, always seal one end with natural material to give the insects the security to lay eggs. If drilling, make sure the holes are sideways and not upwards. Materials may be placed in a wooden box on its side and tilted slightly forward to create drainage.

Bees need a nearby permanent water source and a variety of pollen rich plants, preferably ones that flower at different times of the year or in sequence or have a long flowering season. Varying shapes and colours are also good: blue, purple, white, pink and yellow are bee favourites and a mix of native and exotics is fine. Even the humble dandelion weed is popular.

Ten favourite flowers loved by native bees: *Abelia grandiflora*; *Buddleia*; *Callistemon*; Daisies; *Eucalyptus* and *Angophora*; *Grevillea*; *Lavendula* lavender family, including basil, thyme, lemon balm, mint; *Leptospermum*; *Melaleuca*; *Westringia*.

Even though indigenous bees are usually solitary, they will happily live in a hotel if they have their own room.

But don't be surprised if other insects also enjoy your hospitality. Some of them can also be beneficial and even help with the housework! Ladybirds can eat 500 to 5000 aphids in their short, three week lifetimes. The praying mantis is also a handy tenant who will eat anything, from small ants to large moths. It may be wise to remove any spider webs that you notice.

Even though commercially-made bee/insect hotels have become available, by using your imagination, you can create your very own hotel in all its glory! Throw in some colourful pieces of glass or ceramics, or your favourite pebble, and your bee hotel will not only be functional, but beautiful as well!

Haven't you always wanted to find just the right place for that miniature carving that your Auntie May gave you?

Always remember:

SMALL, LOCAL ACTION CAN SPAWN LARGE GLOBAL ACTION. (Gardening Australia)

Acknowledgements:

Thanks to Ann and Bob McCarter, Trish Arbib and Sylvia David for your contributions.

References: backyardbuddies.org.au

Sustainable Gardening Australia

www.sgaonline.org.au/insecthotels/

aussiebees.com.au

Wikipedia.org

Gardening Australia



*The hotel that Bill built.
Photo courtesy Bill Mullard*



*From Bunnings.
Photo courtesy Pam Tippett*



A unique insect hotel. "Beetle surfboard" created by Sylvia David

A new philosophy *Google Translation of the French plaque

With the exception of a few rare exceptions (the ladybug), insects are generally frightening, to the point of causing in some real phobias. Yet their usefulness is great and their observation fascinating. Fear of the insect is primarily cultural, we are not taught to love insects.

Generally, the insects are content with little to shelter and do not need specific shelters. A pile of stone, wood or plank and even dead leaves, a stump, an old tile, a hole in a wall, old shutters, an attic, the birdhouses.

Especially since many of us have every interest in inviting certain insects to their homes: organic gardening usefully strengthens the populations of ladybugs or lacewings to fight against invasions of aphids; the arborist invites bumblebees and bees, essential for the pollination of his fruit trees. This does not prevent everyone from staying at home, and there, the shelters have an important role to play, by fixing the insects where desired (away from children's play areas and kitchens, wasps!)

For example some auxiliaries and their roles:

-spiders, lacewings, ladybugs, forficules, hymenoptera, heteroptera

and hoverflies eat aphids and mites.

-the beetles, staphylins eat the slugs and caterpillars.

A Chance To 'Do Something'

Louise Egerton

If there's one thing I really HATE doing it's writing submissions. I'd much rather be out planting something but right now there is something absolutely vitally important happening. The Environment Protection and Biodiversity Conservation 1999 (EPBC) Act is currently being reviewed. This is the federal government's central piece of national environmental law and we are all invited to



Louise and halo. What's that about? Read adjoining text.

have a say, so I urge you to steel yourself and read the discussion paper: <https://epbcactreview.environment.gov.au/resources/discussion-paper> and then make a submission. The last date for submission is Friday, 17 April 2020 but might I advise getting stuck in soon.

There is a form on-line with 26 questions before which certain information about the Act is provided. I had to transfer the questions onto a Word document and answer a few each day for several days as the questions really do make you THINK about how we can achieve better outcomes for the environment. It certainly did test my mental faculties but I actually learnt a lot and even quite enjoyed myself in the end.

I urge you to give it a go. And when you've done, you'll feel this little halo spinning around you. Promise.

AND TO FINISH: Snap Send Solve free app.

This is an easy and efficient way to notify local councils, utilities or other authorities of issues that need action in your community. Snap Send Solve means you don't have to know where and how to report incidents. You can snap and send photos on the spot of issues that need attention. This covers everything from parking problems to litter and noise.

Kim Zegenhagen has alerted me to the usefulness of this app when bush walking. If you find trees across the path or some other problem just take a photo and send it off, and it will automatically pinpoint location and the issue will be dealt with within 10 days. I know, you'd wish it done sooner. Download the app on the App Store, or get it on Google Play.



Thank you to Pam Tippett, Fran Mullard, Ann Mc Carter, Clive West, Louise Egerton, Nathan Cady, Sylvia David and Bill Mullard who contributed to this newsletter.

Contributions are always welcome. Please write to me at trisharbib@gmail.com or talk to me at a meeting.

