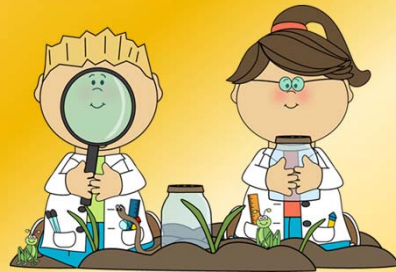


Upskilling community leaders for Australian Pollinator Week

Science activities



DISCLAIMER

Hello and thank you for being part of this project.

This presentation is designed to be shared with the broader community. It is not designed to be changed in anyway, unless authorised by the author.

A script has been provided so that you can confidently deliver this presentation, with some basic facts and wonderful images donated by enthusiastic photographers.

If you have any questions, please feel free to either visit the Bees Business website or email Megan Halcroft

Ok! Let's begin!

(You are welcome to share links with participants, or you can download and print this document so that everyone has a hard copy)



Australian Pollinator Week

Why should we celebrate it
and how can we get involved?



www.beesbusiness.com.au
go to the Australian Pollinator Week tab



Hello! And welcome to this presentation about the importance of pollinator week! This presentation has been created by Dr Megan Halcroft, from Bees Business, to teach people about the importance of pollination and to encourage communities to get involved in Australian Pollinator Week.

What is pollination?



So, first things first, what is pollination?

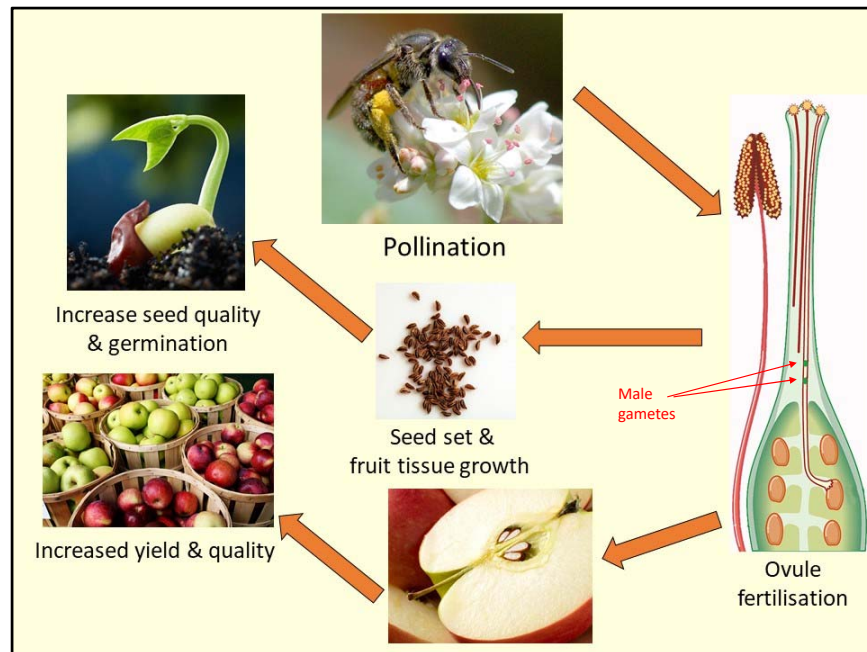
Put simply, pollination is the process by which plants reproduce.

Like in humans, plants have sex cells. Male sex cells are called pollen and are found on the anthers of a flower. Female sex cells are called ovules and are found in the base of the stigma.

For pollination to occur, male and female sex cells must unite.

This requires pollen to be carried from the anthers to the stigma. This is done by a pollination vector, which can be wind, water or an animal.

Once pollen has made contact with the stigma, a sugary secretion on the stigma nourishes the pollen grains.

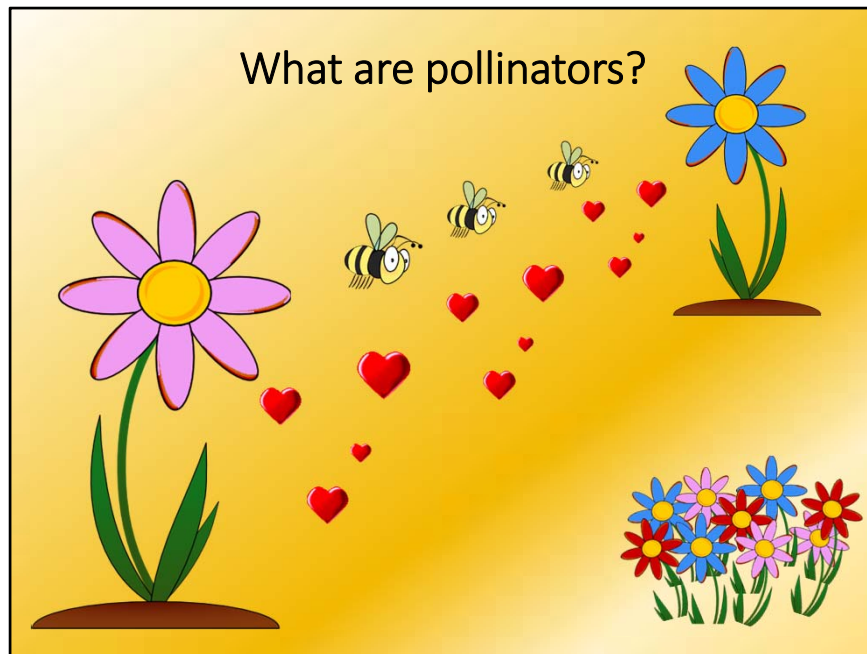


This nourishment causes the growth of a pollen tube, which carries the male gametes down the stigma towards the ovules

When the male gametes finally unite with the ovule, fertilisation occurs and causes the development of seeds.

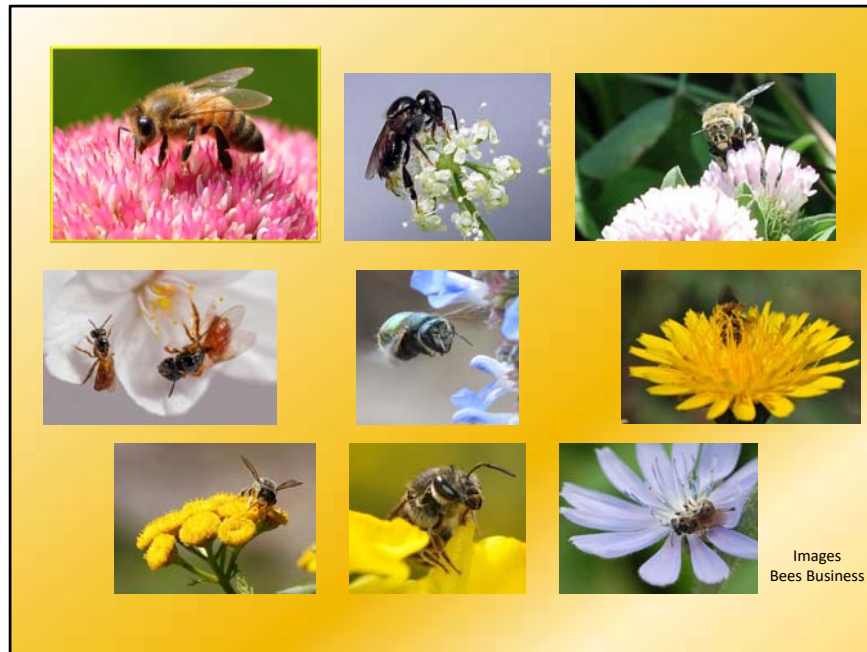
These developing seeds produce a plant hormone which stimulates fruit tissue growth.

This in turn increases fruit and seed quality, and fruit yield.



WHAT ARE POLLINATORS?

A pollinator is an animal that assists in the reproduction of plants, by transferring pollen from flower to flower, with the largest group of animal pollinators being insects.

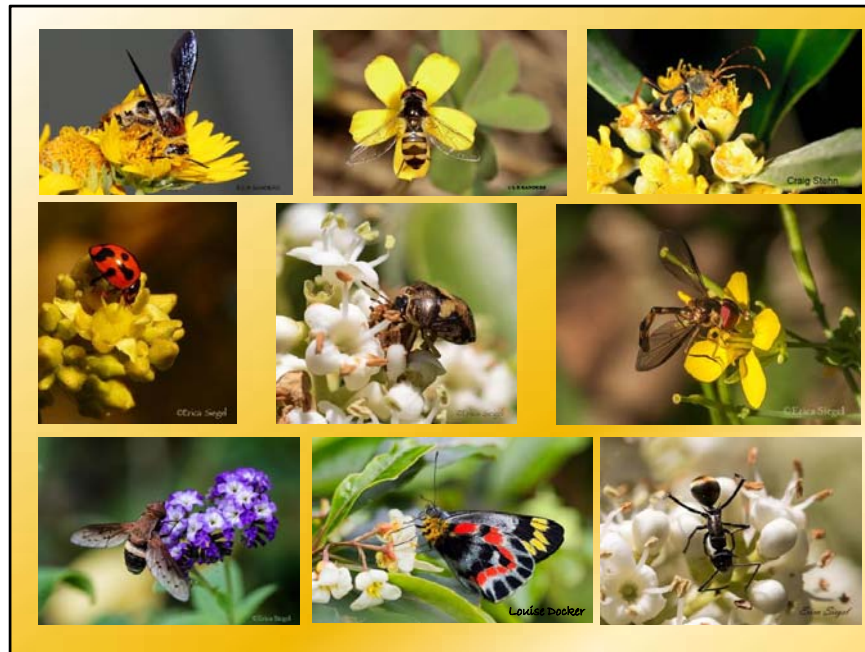


Despite the fact that European honey bees are used widely in Australia's crop production, they are not actually native to Australia.

Australia has approximately 2000 species of native bee.

Many of these bees visit flowers to collect pollen, which is protein, to feed to their babies and nectar, which is sugar, to use as an energy source.

Our native Bees actively collect pollen and most of them pack it into special hairs under their body. As they move over the flowers, large numbers of pollen grains are transferred between flowers.



Australia also has a wide variety of other insect pollinators.

Wasps, hoverflies and ladybeetles also collect nectar from flowers, to give them the energy to perform other useful roles.

Wasps require the energy to hunt other insects for food. This includes pest insects.

And Hoverflies and ladybeetles need energy to hunt aphids.

As the pollinators visit flowers, small amounts of pollen get stuck to their bodies, and is transferred to the stigma of flowers.

What is Pollinator Week?



What is pollinator week?

It's a designated week when communities, businesses and organisations can come together to raise awareness of the importance of pollinators and support their needs. Pollinator week has been celebrated in the northern hemisphere since 2007. But June is not a very inspiring time for insects in Australia.

Australian pollinator week did not come into being until 2015, as part of a community project called "Bee aware of your native bees."

Australian Pollinator Week acknowledges **our** important and unique insect pollinators during the Southern Hemisphere's spring

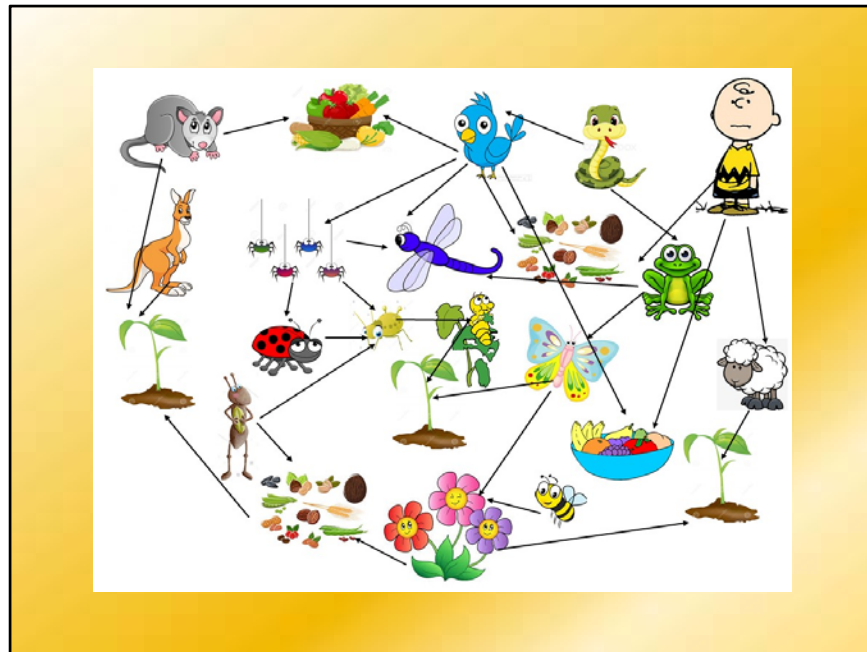
It is held during the 2nd week of November, every year.

It is held from Sunday to Sunday, to coincide with the Wild Pollinator Count



So why should we participate in Australian Pollinator Week events?

Because Pollination services within agricultural and horticultural systems are vital for food production.



And Pollinators drive biodiversity.



But Currently, some pollinator populations are declining due to inappropriate pesticide use, habitat loss and food resource loss.

We need to make people more aware of the importance of our insect pollinators. And that they are under threat.

What can we do?



What can we do?

As Individuals, we can help reverse pollinator declines.

We can reduce or stop using pesticides,

We can plant more flowering plants in your garden

and we can create nesting spaces such as bee hotels, or making space for ground nesting insects in your garden



However, the biggest thing that people can do is to spread the word about the importance of pollinators
Through education, and events such as Australian Pollinator Week, we can make people aware of these hard-working insects.
And hopefully this will encourage more people to care for the pollinators around them.



Group activities encourage discussion and further engagement, while having fun

Science activities



This presentation is designed to increase community awareness by engaging the public in 'science activities.'

There are many free resources that can be found on the Bee Business Website, but many ideas are contained here.

Catch, observe, photograph and ID insects

You don't need anything too elaborate to catch and observe insects. but be careful, because some of them may sting!

Everything you need to know is in the Australian Pollinator Week resource. Adults and children alike love this activity.

There is a catch and ID pdf on the website



Go on a bug hunt, with camera, nets, and jars.

This is an interesting site with good resource <https://playgroundparkbench.com/bug-scavenger-hunt/>



Royal Botanic Gardens stall,
Kurrajong-a-buzz, Pollinator Week 2017

Ask your local school to host an 'up close and personal' Australian Pollinator Week event.

The teachers should have all the necessary equipment to teach kids of all ages.

Try a buddy system where the senior students mentor the youngest students



Get the kids to build some models.
Google native bee nests (top right) or make some giant flowers.

Observe, enjoy, photograph and record insects on flowers



#ozpollinators

The Wild Pollinator Count (<https://wildpollinatorcount.com/>) is the brain child of Dr Manu Saunders. This is an independently managed research project that was created by Manu in November 2014.

This is the only Australian national database on our insect pollinator diversity and abundance. It's an incredibly important project and highlights the importance of citizen science

When Australian Pollinator Week was first launched, Megan thought it would be a great idea to combine these two important events – Wild Pollinator Count and Australian Pollinator Week – to broaden and enhance the community experiences around our pollinators. That's why Australian Pollinator Week is actually 8 days (Sunday to Sunday) instead of a 7 day week. This gives people the opportunity to take advantage of 2 weekends to participate in citizen science

The wild pollinator count website has all the resources necessary to run an event. Including 'how to count', a tally sheet, 'how to submit your observations'

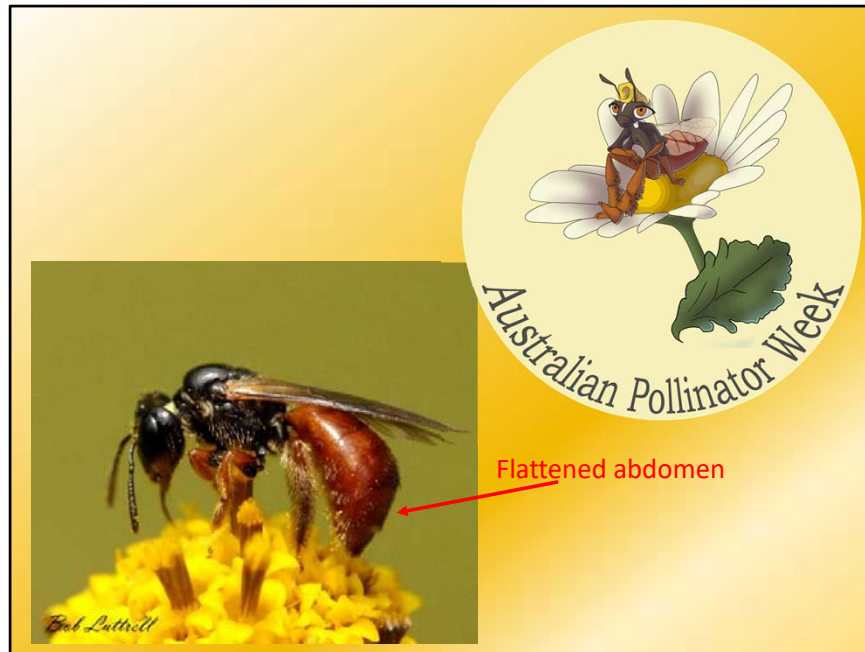
Meet Rita the Reed bee



To help encourage participation in pollinator week, Megan Halcroft and Ebony Salama designed Rita the Reed bee to be the Australian pollinator week mascot
Rita is a semi-social Australian native bee



She progressively feeds her young in the open brood chamber of a small, hollow plant stem.



Whilst designing Rita, Megan and Ebony tried to stay true to the morphological structures that define reed bees.

Her red abdomen has flattened metasomal segments.

She uses this to defend her nest by blocking the entrance.



She has a black thorax pinched at the waist, and yellow markings on her clypeus or forehead, made more distinct by her gorgeous pompadour.



Rita's legs are very hairy, as she needs them to carry pollen back to her nest to feed her babies.

Australian Pollinator Week



So Come and join Rita in spreading the message about Australian Pollinator Week!



Please share these presentations with friend and colleagues

They are available on the Australian Pollinator Week page, on the Bees Business website

Share the awareness.