

Mott Park Kindy

Buzzing with bees



Recipient of a 2024 Woolworths
Junior Landcare Grant



The Importance of Engaging Children with Insects

Engaging young children in activities that explore the world of insects is not only fun but also crucial for fostering a deep appreciation for nature. As children observe and learn about insects, they develop essential skills such as curiosity, observation, and critical thinking. These activities lay the groundwork for a lifelong interest in science and the environment.

At Mott Park Kindy, the 2024 Woolworths Junior Landcare program has played a pivotal role in creating an insect and pollinator haven, including the establishment of a native bee hive. This project has been brought to life thanks to the significant time, effort, and expertise of Rowan Lee and Cait Petkovic. Their dedication has transformed our garden into a thriving ecosystem, providing children with a hands-on opportunity to learn about the vital roles insects play in our environment, from pollination to maintaining healthy ecosystems.

This resource, thoughtfully put together by Cait, aims to assist teachers in engaging children in learning about entomology— the study of insects. By incorporating activities like Insect Identification Cards and Bug Bingo, educators can create exciting and interactive experiences that enhance children's understanding of the natural world. As kids explore their surroundings, they not only discover the diverse insect species that share their environment but also learn the importance of biodiversity and conservation.

Together, these efforts foster a sense of responsibility towards the environment, encouraging children to become stewards of nature as they grow. Engaging with insects opens up a world of exploration and learning, helping to inspire the next generation of environmental advocates.

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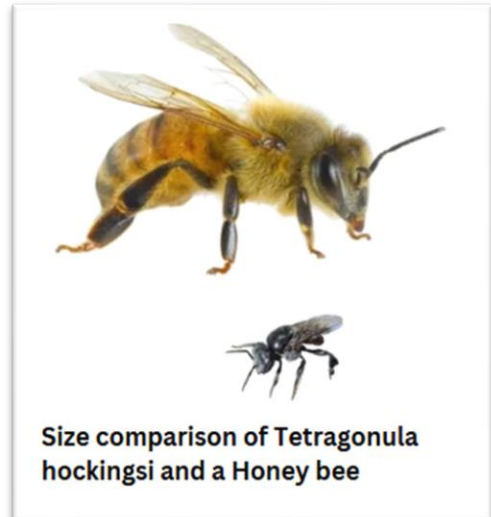
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About our Hive

Our tickle bees (*Tetragonula hockingsi*) as our kinder kids call them, are small [stingless bees](#), native and endemic to QLD. They can make a home anywhere, including your water meter box, but they need urban food corridors.

These tiny black insect, only 4.5mm long, might seem dwarfed by honey bees but boasts a lifespan twice as long, living an average of 100 days. Preferring warmer temperatures, it becomes active when it's above 20°C. Capable of flying up to 500 meters, that's the distance from our Kindy to Wilbur's Coffee Shop.



Hive Maintenance Guide

Weekly

- Check to ensure guard bees are present
- Check for any sour smells, leaking or any moving maggots being carried out (small grubs that aren't moving often failed larva, are normal after adverse weather)
- During nice weather, check that plenty of bees are coming and going. Bees won't fly at night or under 18 degrees Celsius.
- No water to get into the hive:
 - don't put near sprinklers. They currently have soaker hoses under them, so they must be turned under with the holes in the ground.
 - Check the roof for damage, and routinely take off the hive and test for leaks.
- Bees need to drink too; have a saucer with water available near the hive

Quarterly

- Clear your ventilation holes (at the back of your hive) and drains (at the base).
- Check your tape is adequately positioned and replace if necessary
- Your bees may cover the view panel once established, which is completely normal. This will not need to be removed or replaced unless you have a health issue.

Yearly

- Lightly sand your hive and paint with a water-based varnish if needed.
- Like any pet, it is important to have basic knowledge about your native bees. Many books and online resources are available.
 - [Pollinator Link | Explore Bernadette's Pollinator Link Garden](#)
 - [Native Stingless Bees in Winter: Behaviour and Caring Tips](#)
- Annual hive check by a qualified expert can assist you with your continued education.
 - Urban Native Bees - service South East Queensland

Hive location

For Native stingless bees: *Tetragonula hockingsi*

Summer

Two hours of morning sun only. Any more will be detrimental to your hive health.

Winter

Let the sun shine until noon and insulate your hive. This can be as simple as adding a clean cloth, which can help keep the bees warm. The cloth should not have been washed with fragrance detergent or fabric softeners.

They can't fly when they are in temperatures under 18 degrees, so they won't be able to get food or mates.

Moving the hive









Hive can only be moved in distances of 30cm per week and must be lowered to a 40cm (stool height) to do so. You may require to make several 30cm moves each week until the hive is in the correct location. You must then wait another week before raising the hive height.

Cultivating a Native Bee Habitat








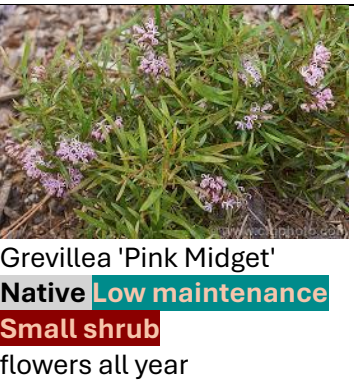
- The flight range determines the habitat size and is measured as the distance at which 50% of the released bees return. This ranges between 200 and 400 m in an urban environment and 400–1200 m in a natural landscape.
 - *Austroplebeia Australis* flight range 500m
 - ***Tetragonula hockingsi* flight range 500m**
 - *Tetragonula Carbonaria* flight range 500m
- Year-round food availability, particularly for scarce seasons like Autumn and winter. See our planting guides for Autumn and winter flowering plants suited to Holland Park.
- Hedge / trim plants native bees pollinate carefully. Don't trim hedge plants when in flower. These common hedges are bee buffets:
 - **Mock Orange** ~ *Murraya paniculata*, flowers through spring to late summer
 - **Lilly Pilly** ~ *Syzygium sp.*, flowers in summer
- Be mindful of self-seeding plants. Seeds can easily spread to the local waterway/creek (BCC), so be mindful of invasive and exotic species.
- Create a network of gardens to feed the native bees
- [Pollinator Link | Explore Bernadette's Pollinator Link Garden](#)

Seasonal flowering guide of Holland Park












Autumn flowering Natives

		
<p>Native Daisy <i>Brachyscome multifida</i> Native Low maintenance Ground Cover</p>	<p>Creeping Boobiolla <i>Myoporum sp.</i> Native Low maintenance Ground Cover</p>	<p>Native Violet <i>Viola banksia</i> Native Low maintenance Ground Cover</p>
		
<p>Native Hibiscus <i>Hibiscus heterophyllus</i> <i>cross divaricatus 'Aussie Pearl'</i> Native Low maintenance</p>	<p>Coastal Rosemary <i>Westringia fruticosa</i> Native Low maintenance Small shrub</p>	<p>Weeping Tea Tree <i>Leptospermum madidum</i> Native Low maintenance</p>
<p>Grevillea <i>Grevillea Sps.</i> <i>Some species can cause skin irritations and are not suitable for playgrounds</i></p> <p>To find the perfect grevial for your garden see: Grevilleas- Brochure-Qld-colour-2019.pdf Native Low maintenance</p>		
	<p>Grevillea 'Cooroora Cascade' Native Low maintenance Ground Cover</p>	<p>grevillea 'coconut ice' Native Low maintenance Shrub</p>












Winter flowering Natives

		
<p>Native Daisy <i>Brachyscome multifida</i> Native Low maintenance Ground Cover</p>	<p>Thryptomene <i>Thryptomene saxicola</i> 'FC Payne' Native Low maintenance Small shrub</p>	<p>Native Violet <i>Viola banksia</i> Native Low maintenance Ground Cover</p>
		
<p>Native Hibiscus <i>Hibiscus heterophyllus</i> 'Aussie Pearl' Native Low maintenance</p>	<p>Coastal Rosemary <i>Westringia fruticosa</i> Native Low maintenance Small shrub</p>	<p>Rice Flower <i>ozothamnus diosmifolius</i> Native Low maintenance Small shrub</p>
	<p>Grevillea <i>Grevillea</i> Sps. Some species can cause skin irritations and are not suitable for playgrounds</p> <p>To find the perfect grevial for your garden see: Grevilleas- Brochure-Qld-colour-2019.pdf Native Low maintenance</p>	 <p>Grevillea 'Pink Midget' Native Low maintenance Small shrub flowers all year</p>
<p>Weeping Tea Tree <i>Leptospermum madidum</i> Native Low maintenance</p>		

Spring flowering Natives

 <p>Native Daisy <i>Brachyscome multifida</i> Native Low maintenance Ground Cover</p>	 <p>Fan Flower <i>Scaevola aemula</i> Native Low maintenance Ground Cover</p>	 <p>Native Violet <i>Viola banksii</i> Native Low maintenance Ground Cover</p>
 <p>Creeping Boobiolla <i>Myoporum sp.</i> Native Low maintenance Ground Cover</p>	 <p>Blue Flax <i>Dianella caerulea</i> Native Low maintenance Tufting plants and grasses</p>	 <p>Native Wisteria <i>Hardenbergia comptoniana</i> Native Low maintenance vine</p>
 <p>Native Hibiscus <i>Hibiscus heterophyllus</i> 'Aussie Pearl' Native Low maintenance</p>	 <p>Coastal Rosemary <i>Westringia fruticosa</i> Native Low maintenance Small shrub</p>	 <p>Weeping Tea Tree <i>Leptospermum madidum</i> Native Low maintenance</p>
 <p>Thryptomene <i>Thryptomene saxicola</i> 'FC Payne' Native Low maintenance Small shrub</p>	<p>Grevillea <i>Grevillea Sps.</i> Some species can cause skin irritations and are not suitable for playgrounds</p> <p>To find the perfect grevial for your garden see: Grevilleas-Brochure-Qld-colour-2019.pdf Native Low maintenance</p>	 <p>Grevillea 'Royal Mantle' Native Low maintenance Ground Cover flowers in winter and spring</p>

Summer flowering Natives

		
<p>Native Daisy <i>Brachyscome multifida</i> Native Low maintenance Ground Cover</p>	<p>Fan Flower <i>Scaevola aemula</i> Native Low maintenance Ground Cover</p>	<p>Native Violet <i>Viola banksii</i> Native Low maintenance Ground Cover</p>
		
<p>Creeping Boobialla <i>Myoporum sp.</i> Native Low maintenance Ground Cover</p>	<p>Coastal Rosemary <i>Westringia fruticosa</i> Native Low maintenance Small shrub</p>	<p>Ngun ngun may bush~ <i>Leptospermum leumanii</i> Native Low maintenance Shrub</p>
		
<p>Native Hibiscus <i>Hibiscus heterophyllus</i> 'Aussie Pearl' Native Low maintenance</p>	<p>Lilly Pilly ~ <i>Syzygium sp</i> Native Low maintenance Tree</p>	<p>Weeping Tea Tree <i>Leptospermum madidum</i> Native Low maintenance Tree</p>
<p>Grevillea <i>Grevillea Sps.</i> Some species can cause skin irritations and are not suitable for playgrounds</p> <p>To find the perfect grevial for your garden see: Grevilleas- Brochure-Qld-colour-2019.pdf Native Low maintenance</p>		
	<p>Grevillea 'Fanfare' Native Low maintenance Ground Cover flowers in spring and summer</p>	<p>Grevillea 'Shirley Howie' Native Low maintenance Small shrub flowers all year</p>

Beneficial exotic plants

Having year-round food availability for our pollinators is essential, particularly for scarce seasons like Autumn and winter. See our planting guides for Autumn and winter flowering plants suited to Holland Park.

Autum

- Megan's Magic Salvia
- Ribbon Bush ~ *Hypoestes aristata* **Low maintenance**
- Bush Marigold ~ *Tagetes lemmonii*
- Camellia ~ *Camellia Spc.*
- Agastache ~ *Agastache Spc.*
- Nasturtium ~ *Tropaeolum majus*

Winter

- Five-in-One Herb / Spanish Sage ~ *Plectranthus amboinicus* **Low maintenance** **Edible**
- Citrus fruits: Lime, Lemon **Low maintenance** **Edible**
- Thai Basil **Edible**
- Agastache ~ *Agastache Spc.*
- Bush Marigold ~ *Tagetes lemmonii*

Waterwise Gardening

Brisbane's subtropical climate is delightful, but El Niño conditions can bring hotter temperatures and reduced rainfall. To help our local bees thrive despite these challenges, we employ a variety of water-efficient gardening systems that minimise plant water consumption.

Wicking Beds

A wicking bed is a self-contained garden bed featuring a reservoir at the bottom. Water is drawn up through the soil by capillary action, ensuring even moisture distribution and reducing the need for frequent watering. This method also lowers evaporation rates, making it an environmentally sustainable choice. At the Kindy, we utilize Waters Up wicking planters and channels, which were purchased with support from a previous Landcare grant.

Ollas

The term "Olla" (pronounced oya) refers to "pot" in Spanish and describes an ancient irrigation system used across various cultures for thousands of years. This system involves burying unglazed clay pots in the soil, with just a small portion above the surface. When filled with water, the ollas allow moisture to seep through the clay and reach the plant roots, thus preventing overwatering.

At the Kindy, we use two types of DIY ollas: the traditional two-pot method and the pot and saucer bee bath method.



How to Make Your Space Buzz with Wildlife

1. **Add Pollinator-Friendly Plants:** Enhance your garden with plants that attract native bees. Check out our handy guide here for recommendations on creating a thriving pollinator network.
2. **Get Free Native Plants:** Brisbane City Council offers a variety of plants through their Free Native Plants Program, suitable for all garden types and sizes. Explore plant descriptions, growing conditions, and information on how they attract local fauna to make your garden a haven for wildlife. Learn more [here](#). Every plant contributes to Brisbane's urban forest, supporting wildlife and making the city greener and more sustainable.
3. **Request a Verge Tree:** If you don't already have one, ask the Council to plant a verge tree. Consider the *Leptospermum Madidum* for its beauty and ecological benefits.
4. **Join Pollinator Link:** Connect with others who are passionate about pollinators by joining Pollinator Link [here](#).
5. **Join Landcare Australia:** Get involved with local conservation efforts by joining a Landcare Australia group [here](#).
6. **Attract Butterflies:** Adopt a plant and learn what to grow to attract butterflies. Find guidance on page 22 of the [Butterfly Booklet](#).
7. **Participate in Brisbane's Big Butterfly Count:** Contribute to tracking butterfly populations in Brisbane by taking part in the Big Butterfly Count [here](#).

Activities for kid

1. Insect Identification Cards

- **Create Cards:** Make simple identification cards with pictures and fun facts about common insects like ladybugs, butterflies, caterpillars, grasshoppers, and ants.
- **Color-Coding:** Use colors to categorize insects (e.g., red for ladybugs, yellow for bees) to make them visually appealing and easy for kids to remember.

2. Themed Hunts

- **Color Hunt:** Have kids look for insects of specific colors on different days (e.g., red insects one day, yellow the next). This adds variety and excitement to each safari.
- **Size Hunt:** Challenge them to find the smallest and largest insects in the area, discussing their differences and roles in nature.

3. Insect Habitats

- **Explore Different Areas:** Designate specific areas in the kindergarten (like flower beds, grassy patches, and under rocks) as habitats. Explain what kinds of insects might live in each habitat and let kids explore.

- **Habitat Guides:** Provide little guides that describe what insects might be found in each area to help kids understand where to look.

4. Insect Observation Journals

- **Journaling:** Give each child a small notebook to record their findings. They can draw pictures or write simple words about the insects they see.
- **Observation Prompts:** Encourage them to note colors, shapes, and behaviors (e.g., “What is the insect doing?”) to deepen their engagement.

5. Insect Behaviour Watch

- **Behavior Focus:** Teach kids to observe specific behaviors (like ants working together or butterflies fluttering). Create a fun checklist for behaviors to look for.
- **Questions to Explore:** Pose questions like, “Why do you think ants are working together?” to spark curiosity and discussions.

6. Sound and Movement Game

- **Sound Match:** Play a game where kids listen for specific insect sounds (like buzzing for bees or chirping for crickets). When they hear it, they can race to find the source.
- **Movement Imitation:** Encourage them to imitate how certain insects move (e.g., crawling like a caterpillar or hopping like a grasshopper) as they search, adding a physical component to the activity.

7. Insect Collecting (With Care)

- **Gentle Collecting:** Provide small, clear containers for them to gently collect insects they find (with adult supervision). Teach them to observe without harming the insects.
- **Release and Learn:** After observation, have a gentle release ceremony where kids can learn about the importance of letting insects go back to their habitats.

8. Post-Safari Reflection

- **Group Sharing:** After the hunt, gather the kids to share what they found. They can use their journals or drawings to talk about their favorite discoveries.
- **Insect Parade:** Host a fun “insect parade” where kids can show off their findings, sharing stories about each insect’s unique traits.

These activities will not only make the insect safari engaging but also educational, fostering a love for nature and curiosity about the world around them!

About the Junior Landcare Program

Each year, Landcare Australia's Junior Landcare program offers children a unique opportunity to actively contribute to a sustainable future for their environment.

In 2024, Mott Park Kindy was fortunate to receive a Junior Landcare grant, along with complimentary educational resources. This support allows children to:

- **Understand Environmental Issues:** Gain awareness of environmental challenges and sustainability.
- **Take Meaningful Action:** Be empowered to engage in activities that restore, enhance, and protect the environment.
- **Participate in Their Community:** Become active contributors to their local community, shaping the next generation of Landcarers.

Junior Landcare is dedicated to integrating sustainability and environmental education into homes, classrooms, and communities across Australia. It provides children with hands-on learning experiences about environmental stewardship.

Mott Park Kindy hopes these resources inspire you to become aware, empowered, and actively involved in keeping Holland Park vibrant and full of wildlife.

These are some of our favourite Landcare learning Activities:

[Love Letters to the Land](#)

Content-Type: Learning Activity

Subject: Biodiversity| First Nations Perspectives| Food Production| Waste Management

Time allocation:45 mins

Age: 0-7| 7-13

[Getting the buzz on bees and other beneficial insects](#)

Content-Type: Learning Activity

Subject: Biodiversity

Time allocation: 30 - 40 minutes*

Age: 0-7

https://juniorlandcare.org.au/learning_activity/getting-the-buzz-on-bees-and-other-beneficial-insects/?age=

[Sow a seed, grow a feed](#)

Content Type: Learning Activity

Subject: Biodiversity

Time allocation: 20 - 30 minutes* per group of 4-5 Children

Age: 0-7

Bee-attracting native plants we sowed in 2024

- **Native daisies** — Brachyscome species and Xerochrysum bracteatum
- Purple pea flowers such as Hovea and **Hardenbergia**

[What's happening in the habitat?](#)

Content Type: Learning Activity

Subject: Biodiversity

Time allocation: 30 - 40 minutes*

Age Range: [0-7](#)

[Propagating Lomandra](#)

Content Type: Learning Activity

Subject: Biodiversity

Time allocation: 1st - 20 minutes, 2nd session 4 weeks latter - 30 - 40 minutes*

Age Range: [0-7](#)

<https://www.lfwseq.org.au/propagating-lomandra/>

[Pollination STEM Activity](#)

Content Type: Learning Activity

Subject: Biodiversity

Time allocation: 30 - 40 minutes*

Age Range: [0-7](#)

<https://aroundthekampfire.com/pollination-stem-activity/>

Observations from Rowan's Garden

Rowan has been a driving force behind the success of this project, nurturing native bees since 2012. Her dedication has not only supported these vital pollinators but also cultivated a rich habitat for all our native birds and pollinators. Rowan's Garden exemplifies an urban sanctuary buzzing with life and vitality. Her efforts have transformed her space into a vibrant oasis where diverse species flourish. Over the years, Rowan has made numerous inspiring observations that highlight the incredible biodiversity her garden supports.

Leafcutter Bees

- Roses
- Wisteria
- Desmodium
- Sennas
- Ginger **Edible**
- Bauhinia
- Bananas **Edible**

Stingless Bee (Hive)

- Camellia
- Nasturtium *Tropaeolum majus*
- Weeping Tea Tree ~ *Leptospermum madidum* **Native** **Low maintenance**
- Lilly Pilly *Syzygium sp.* **Native** **Low maintenance** **Edible**
- Native Wisteria ~ *Hardenbergia comptoniana* **Native** **Low maintenance**

Rosellas (Pale-Headed Rosella)

- Grevillea Moonlight **Native** **Low maintenance**

Moths

- Plumbago
- Weeping Tea Tree ~ *Leptospermum madidum* **Native** **Low maintenance**

Beetles

- Weeping Tea Tree ~ *Leptospermum madidum* **Native** **Low maintenance**
- Lilly Pilly ~ *Syzygium australe* 'Cascade' **Native** **Low maintenance** **Edible**
- Ngun ngun may bush ~ *Leptospermum leumanii* **Native** **Low maintenance**

Solitary Bees

Including Blue Banded, Teddy Bear, Great Carpenter, Common Teddy Bear and Neon Cuckoo Bees

- Native Flax ~ *Dianella Sp.* *** Native**
- Blue Ginger (not true ginger) *Dichorisandra thyrsiflora*
- Ribbon Bush
- Salvias Megans Magic

- guinea vine ~ *Hibbertia Scandens* **Native**
 - **Flowering Time** : Spring, Summer
- Liriope
- False Freesia
- Agastache
- Jacaranda
- Pastel Plant (?)
- Sunflowers **Low maintenance** **Edible**
- Lilly Pilly ~ *Syzygium australe* 'Cascade' **Native** **Low maintenance** **Edible**
- Banksia **Native** **Low maintenance**
- Comfrey,
- Fruit and Vegetables: **Low maintenance** **Edible**
 - Tomatoes (Cherry best), Pak Choy / Bok Choy , Lemon, Lime, Mango, Passionfruit, Rocket, Guava
- Herbs: **Low maintenance** **Edible**
 - Sage, Lavender, Marjoram, Rosemary, Basil, Thai Basil, Coriander