

CONNECT WITH NATURE

BACKYARD SAFARI



Look no further than your own backyard to discover an incredible variety of animals and creepy crawlies. You'll be surprised at what you find when you look closely!

This guide covers the following simple techniques that can be replicated in your own backyard or local nature reserve to discover a variety of creatures:

1. Sweep netting;
2. Pitfall trap;
3. Water spray bottle;
4. Light trap; and
5. Night safari (spotlighting).

Remember to stay safe while exploring and minimise any disturbance to animals and their homes by being gentle and quiet observers.

For your own safety please ensure you:

- Take a friend along;
- Wear sturdy shoes; and
- Watch for snakes and spiders – If you see a snake or spider, do not touch it. Move away slowly. If we leave them alone, they will leave us alone.

And remember - get out there and connect with nature!

SWEEP NETTING

Sweep netting is a technique used to capture insects from the top of vegetation or long grass.

It's a handy technique to capture flying insects, such as butterflies and grasshoppers, that allows

you to take a closer look at these fast-moving creatures and discover the biodiversity living within the grass.

What might I see?

Butterflies, grasshoppers, crickets, beetles, flies, moths.

When is the best time to sweep net?

During the day but try to avoid the hot midday sun as it's too hot for the insects and you!

How do I sweep net?

Step 1

Collect all the equipment you'll need for this activity:

- Sweep net;
- Container;
- Gloves; and
- Magnifying glass.



Find a patch of vegetation or long grass and sweep the net left to right across the top of the vegetation while slowly walking forward. At the end of the sweep, turn the net with its opening down and horizontal. The bottom of the net will drape over the edge of the frame and will trap any insects that have been caught.



Step 3

Once you have finished sweeping your patch of grass or vegetation, bunch up the net with one hand close to the bottom. Then safely check for any bees and wasps you may have caught.

If you have bees or wasps in your net, put the net at arm's length and let it hang with the opening facing up. This will allow any bees or wasps to fly away.



Step 4

Wearing your gloves, carefully transfer the critters you captured in your net to a plastic container.

Remember to close the container lid or they will fly away before you get a chance to view them!



Step 5

Hold the container up to the light and look closely to see what you have caught. A magnifying glass will help you see the fine details of the bugs and creatures in the container.



Step 6

Once you have finished inspecting the creatures, open the lid to let the flying bugs out and then turn the container upside down on the ground to let any other bugs go on their merry way.



PITFALL TRAP

A pitfall trap is the simplest way to capture small ground-dwelling creatures, including bugs and lizards. Creatures that run along the ground fall into the trap and are unable to escape the ground, which allows us to check out these creatures for a small amount of time and then let them go unharmed.

What might I see?

You will be able to use this technique to discover beetles, slaters, cockroaches and even small lizards.

When is the best time to set up a pitfall trap?

Set up the trap in the afternoon to leave overnight and revisit in the morning to discover what creatures you have trapped.

How do I set up a Pitfall Trap?

Step 1

Collect all the equipment you'll need for this activity:

- Gloves;
- Cup or container such as an old plastic pot plant with a small drainage hole in the bottom;
- Shovel/trowel;
- Magnifying glass;
- Spoon or paint brush (to gently scoop bugs out of the container); and
- Leaf litter/twigs.



Step 2

Find a suitable location in your backyard such as a garden bed and dig a small hole large enough to fit your choice of trap (plastic cup or plastic pot plant). Ensure the hole is just a little deeper than the container.

Remember to pierce a small hole at the bottom of the cup or container in case it rains, to allow any water to drain away and prevent trapped creatures from drowning.



Step 3

Place the pitfall trap in the hole so that the container sinks just below the ground surface. Backfill with soil around the rim of the trap.

Place leaf litter and twigs in the bottom of the trap to provide the creatures with protection from birds or other predators while they are in the trap.

Leave the trap overnight.



Step 4

Check on the trap the next morning.

Pull the trap out of the ground and carefully place the contents into a plastic container and secure this with a lid.

We don't leave them in the trap for too long especially if it is a hot day, as this could harm the creatures.



Step 5

Hold the container up to the light to take a closer look at what was caught in the pitfall trap. A magnifying glass may help you get a better look at any tiny creatures.

Step 6

Once you are finished observing the creatures in the trap, carefully turn the container upside down on the ground to let them return to the garden.



WATER SPRAY BOTTLE

You can illuminate the hidden spider webs in your garden just by using a humble water spray bottle! Spray the water over a bush to discover just how many spiders have cast their web and even what they may be having for lunch.

What might I see?

Small spiders and other insects – perhaps even those caught in the spider’s web.

When is the best time to use the water spray bottle technique?

During a sunny day to show any webs clearly in the bright light.

How do I use the Water Spray Bottle technique?

Step 1

Collect all the equipment you’ll need for this activity:

- Spray bottle containing water;
- Gloves; and
- Magnifying glass.



Step 2

Ensure the water bottle is filled with water only and head into your garden to find a bush or tree.

Step 3

Ensure the spray bottle is set onto the misting setting and then gently mist the water over the bush or tree to locate a spider web and reveal what is within it.



Step 4

Be careful not to touch the spider or damage its web. Use the magnifying glass to get an up close look at what’s in the web.

How many insects can you see in the spider web and what are they?



LIGHT TRAP

Have you ever noticed that bugs are attracted to lights in and out of your home?

Many nocturnal species of bugs use the light of the moon to help them navigate through the world, and when you turn on your outdoor light at night, they mistake this for the moon and fly towards it.

Other bugs that are active during the day get confused when an artificial light is on at night, as they think it is daytime and that it's time to get moving to avoid their predators.

The light trap is a great technique to observe bugs that you may not see during the day.

What might I see?

Beetles, wasps and lots of moths!

When is the best time to Light Trap?

Outside when it is dark.

How do I set up a Light Trap?

Step 1

Collect all the equipment you'll need for this activity:

- Sheet;
- Somewhere to hang the sheet, like a clothesline; and
- Light source - an outdoor light on your balcony or a handheld torch.



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Step 2

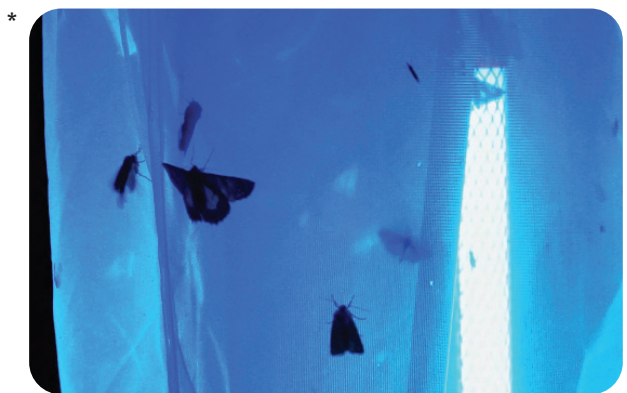
Before sunset, set up the sheet close to an outdoor light or if you are using a torch, hang the sheet on your clothesline and secure with pegs.

Step 3

Once the sun has set, turn on the outdoor light and stand back and wait for the bugs to be attracted to the light source.

If you are using a torch, position it to light up as much of the sheet as possible and wait for the bugs.

Observe the bugs attracted to the light trap.



What sort of bugs and insects did you see?

Here's a tip!

You could try this activity at different times of the year to see if the types of bugs change with the seasons. Are there more or less bugs in summer compared to winter?



NIGHT SAFARI (SPOTLIGHTING)

While you can observe a huge range of creatures during the day, Australia is home to many species of nocturnal creatures that are only active at night.

So how do you see creatures that are only active at night? You head out on a night safari!

Spotlighting in your local nature reserve, or even your backyard, is a simple technique that can be used on a night safari as it lights up our night time world to reveal elusive creatures.

When is the best time to go Spotlighting?

Any time after sunset, as this is when the nocturnal animals begin emerging from their slumber.

Animals are less likely to be seen during heavy rain, strong winds and very cold nights.

What might I see?

Nocturnal animals such as:

- Brushtail and Ringtail Possums;
- Frogs;
- Insects and spiders;
- Sugar gliders;
- Powerful Owl, Barking Owl or Southern Boobook;
- Tawny Frogmouth; and
- Wombats.



Where can I go on a night safari?

It's important to carry out the night safari in a park or reserve with defined paths to ensure you don't wander off and get lost. A list of suitable locations is below:

- Kings Bush Reserve/Nepean River Cycleway, Camden;
- Elizabeth Macarthur Reserve, Camden;
- John Peat Reserve, Camden;
- Cut Hill Reserve, Cobbitty;
- Elizabeth Throsby Reserve, Currans Hill;
- Charles Throsby Reserve, Currans Hill;
- South Creek Reserve, Gledswood Hills;
- Gledswood Hills Reserve, Gledswood Hills;
- Harrington Forest, Harrington Park;
- Harrington Park Lake, Harrington Park;
- William Howe Regional Park, Mount Annan;
- George Caley Reserve, Mount Annan;
- Lake Yandel'ora, Mount Annan;
- The Cascades, Mount Annan;
- Gundungurra Reserve (North), Narellan Vale;
- Kolombo Creek, Oran Park;
- Grand Prix Park, Oran Park; and
- Springs Lake Reserve, Spring Farm.



Here's a tip!

It's a good idea to be familiar with the path that you will take on a night safari in the dark. You could walk the route during the day to identify any potential trip hazards to be aware of when you walk at night. And remember to always take a parent or guardian with you on a night safari.

Key points to remember when spotlighting:

- Pack all the equipment you will need
- Head torch or handheld torch with red light filter or red cellophane;
- Long sleeve shirt, trousers and sturdy shoes; and
- Insect repellent.



Ethical spotlighting

Remember, we want to observe the creatures without causing them too much disturbance. If you have a red-light filter on your torch be sure to use it, as this will not harm their night vision.

If you don't have a red filter, you could cover the light with red cellophane to reduce the brightness of the white light from the torch and reduce harm to the animal's eyes.

Shhhh, listen...

Be as quiet as possible to listen for sound clues such as animal calls or rustling of leaves as the animals move through the trees. Once you hear a

sound, point your torch in the direction you heard the sound and try to spot the animal.

Look for eye-shine

Scan your torch through the vegetation and look for eyeshine. Eyeshine will indicate a creature's presence. Once you have located the creature, switch the torch to the red-light setting or cover the end with red cellophane and then have a closer look.

Look at the ground, as well as the trees to see many types of animals

Systematically sweep the vegetation with your torch from the ground up to the tree canopy. Also sweep the vegetation with your torch in different directions as you quietly move along the path i.e. in front of you, behind you and to the left and right.

Be safe, take care and enjoy!

- Take a friend or family member with you;
- Tell someone where you are going;
- Wear sturdy shoes and long pants; and
- Stick to the paths.



Photo by Chris Munson

**Photos by Hooked on Nature.*

What's next?

Now that you've explored your backyard and discovered all the different creatures living there, how about you head out on a nature safari in a local park or reserve to discover what plants and animals call that reserve home?

For more information on where to go on a nature safari and tips and tricks to spot wildlife, download a copy of the nature safari guide.