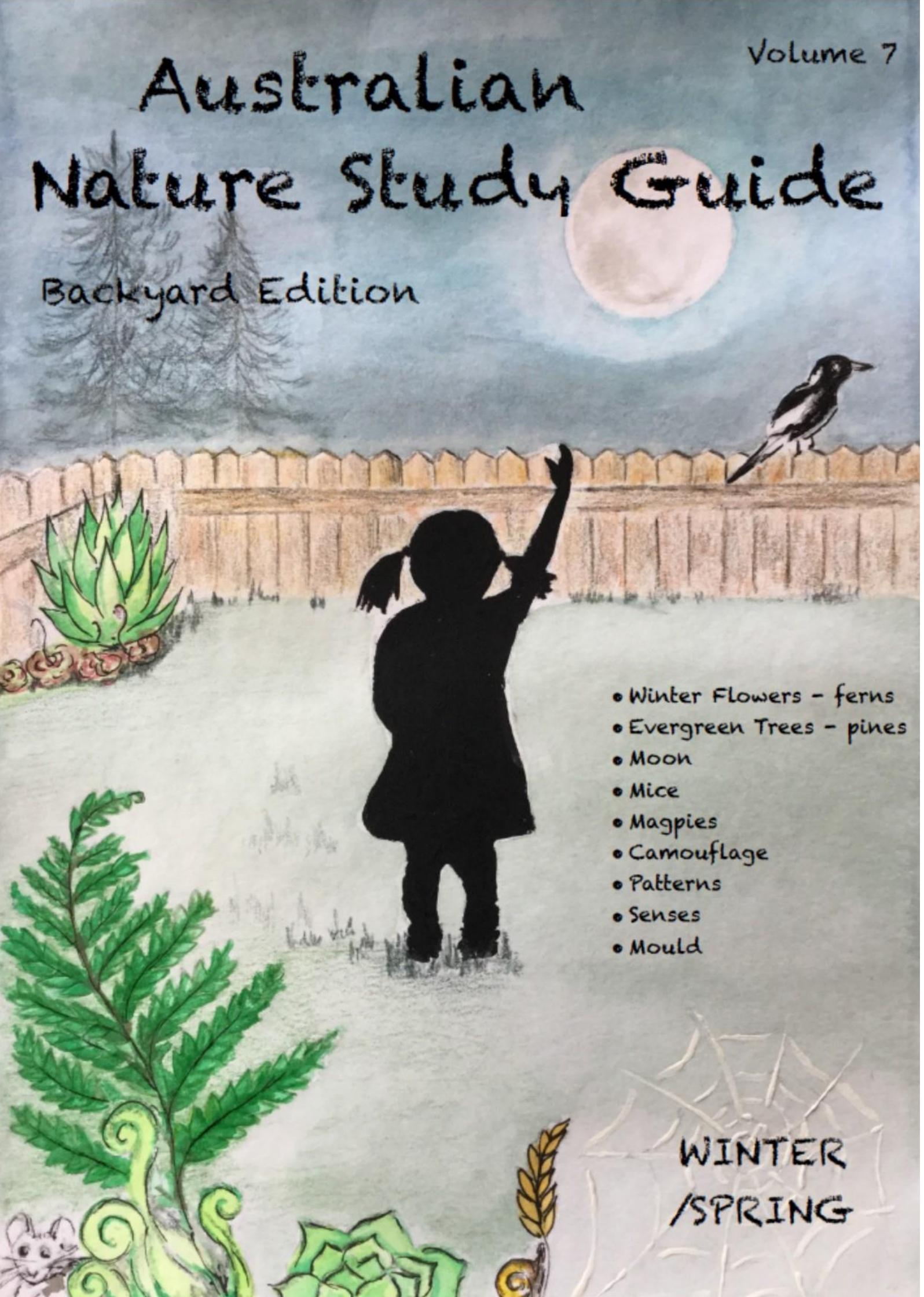


Australian Nature Study Guide

Backyard Edition



- Winter Flowers - ferns
- Evergreen Trees - pines
- Moon
- Mice
- Magpies
- Camouflage
- Patterns
- Senses
- Mould

WINTER
/SPRING

AUSTRALIAN
NATURE STUDY
GUIDEBOOK

Winter and Spring

Volume Seven

Backyard Edition

First Published by Marie Viljoen 2019

First Edition 2019

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About the Author

Marie Viljoen has been home educating for eleven years. She shares her life with her wonderful husband and lives on the land with four of her five children who delight in assisting dad. Two of her daughters have graduated and she's the grandparent of two **precious granddaughters** so far.



Marie Viljoen

In those rare moments when there's time to breath and cappuccinos and chocolate are bliss, she loves to read, bush walk and journal. Above all, she adores her Saviour and exploring His exquisite creation brings her joy while sharing the experience with her children. She's so excited for the opportunity to write and share nature discoveries with you.

Dedication:

To my children for their patience and support – Thank you for tagging along with me on my excursions and being patient when I linger too long. To my longsuffering husband – Thank you for giving me the time to chase my dreams and for not complaining when dinner is late. Again! To my special friend, Elizabeth – Thank you for your consistent encouragement and support. To my amazing friend Johanna – Thank you for simply believing in me, and for the motivation and inspiration you sprinkle in my life. I appreciate all you do. To my Creator – Thank you for giving me the 'eyes to see' Your marvellous creation.

A warm thank you to the photographers
who kindly contributed their photographs for this project.

Get in Touch!

It is my hope this guide will encourage you to marvel at the Aussie wildlife in your backyard and refresh your spirit as you explore and enjoy the gift of creation.

[Nature Science for Aussie families](#) is a F.B. Group where outdoor mamas share their adventures, explorations and activities to motivate, encourage and support one another. We'd love to have you [come along side us](#) and share in our joy of the outdoors.

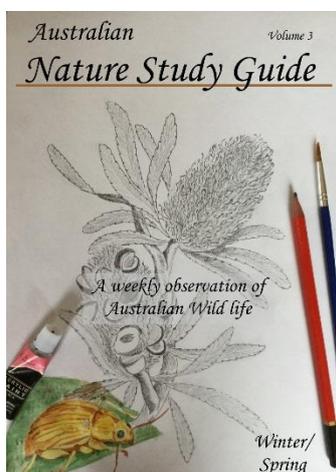
[Become a part of our email community](#) for additional support and free resources that'll enrich your nature study encounters by subscribing to our monthly Nature Study Journal [here](#).

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[Nature Study Australia Forum](#)



I invite you to take a weekly walk through Australian wildlife with the

[Winter/Spring Nature Study Guide](#)

WELCOME NATURE ENTHUSIAST!

The Australian Nature Study Guidebook: Weekly Observations of Australian Wildlife was born out of a need to share nature with my children through the southern hemisphere's seasons. In the [Winter/Spring nature study guide](#), we observed the platypus, searched for orchids, explored our areas for wildflowers and investigated the Eucalyptus Leaf beetle. We also searched for molluscs and enjoyed banksia flowers. It was a joy to observe the season while connecting with our unique Aussie wildlife.

Now, I invite you to slow down with me and explore nature in the backyard or park where we'll encounter common, but interesting and complex creatures living alongside us like magpies and mice. We'll learn interesting facts relating to camouflage and mould while investigating nature with our senses. We'll also begin a moon phenology wheel and search for patterns.

I encourage you to take a leisurely walk through this guide, pausing a while should a child be particularly interested and inspired to explore a little longer on a topic. A weekly theme can be extended into a month of adventure where the child is immersed into the secret worlds of nature and natural play.

I hope you'll be inspired to step outdoors with your family and enjoy making precious memories while following the seasonal transformations in the backyard.

As a Christian, my writing will be flavoured with a Christian worldview and as home educators, we have the liberty to take what we need from a resource and leave what we don't, so you have the freedom to tailor this guide to your unique family and personal beliefs. We all have the same goal in mind: to give our children an exceptional education fashioned to their own capabilities and interests.

The information included in this guide can be used by all home educators regardless of your preferred learning style. It is flexible and easily tailored to your preference whether it be Charlotte Mason, Unit Studies, Unschooling, Project-Based, Classical, Traditional, Montessori or Waldorf based.

This guide will encourage observation, exploration, adventure, discoveries, creations, research, writing, reading, drawing, painting, comparisons, discussions, wonder and much more. So, come along. Walk with me.

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STARTING OUT

“It is infinitely well worth the mother’s while to take some pains every day to secure, in the first place, that her children spend hours daily amongst rural and natural objects; and, in the second place, to infuse into them, or rather, to cherish in them, the love of investigation.” ~ Charlotte Mason

Let’s Get Started

This section will provide information on the topic being researched before you head out doors, so that you are equipped with the knowledge you need to answer questions when they’re fired at you. It is by no means exhaustive. Instead of reinventing the wheel, I’ll be referring you to helpful resources or links on the weeks theme if you’d like to research it further and dig deeper.

Nature Rambles

Nature rambling is a time to explore the backyard and notice which creatures are living amongst you or visiting for a season. Encourage children to investigate the yard for the subjects of your study and observe them; noticing their behaviour, habitat and feeding habits. Once discoveries have been made, the child is free to play or note their observations within a nature journal or by using the notebook pages provided with the guide.

Literature Jaunt

I’ve included a list of children’s books relevant to the theme of the week which will offer enjoyment and ignite excitement in the subject to be explored. Enjoy them by reading the stories outdoors if the weather permits or introduce them to your ‘circle time’ or ‘morning basket.’

The studies do not rely on these books, so don’t stress if you can’t find a title or if you’re unable to visit the library. After reading a story to your children, ask

them to narrate it back to you. Start with the youngest child so the older children are challenged further to recall what was read to them.

Please preview the books first to see if they meet your standards. There are a few books that have a secular worldview. I'd suggest skipping the historical viewpoints to the facts related to the study. Also ensure your children have a firm grounding in the creation of the world by God as then they'll be able to perceive evolution's point of view on historical science.

Poetry Picnic

Reading poetry while enjoying a snack is so refreshing and I guarantee, that if the children aren't keen on poetry, they'll be there for refreshments. Pull out your blanket, and a snack to enjoy while reading the poems included in this section with your children. Due to copywrite laws, I haven't included the poems in the guide, but most of them can be found with an internet search. The poems can be used as copy work, either as handwriting practice or as an addition to their nature journal entry. They can also be used for dictation and memory work.

Picture Study

Picture study is a fun way to include art appreciation into your schedule. Children are exposed to wonderful works of art and ideas. The artworks can be found by using the internet in a quick search. Charlotte Mason's method of picture study is for the children to look at the picture intently, and for as long as they need and then answer these few questions:

- Ask them what they saw and expect them to describe it in as much detail as they can. Start with the youngest child so the older children are challenged to include more detail.
- What time of day is it?
- What season do you think it is?
- Is there a story to the picture or is it a scientific sketch?
- Do you like the picture? Why or why not?

Digging Deeper

In this section you'll find activities that will help the children to dig deeper into the nature study should they choose to. There are activities for research, science, crafts, writing, art and much more. Allow the children to choose an activity that's most appealing to them unless you'd like to take a unit study approach and work on these assignments over a few weeks. I've included assignments to be enjoyed by a variety of ages. As families, we know it's important to enjoy the outdoors together, and as busy people, we can save time by integrating all ages into one study.

Consider Its Ways

We'll consider the ways of nature: the work of insects, the perseverance of plant life and the faith and contentedness of birds in an effort to learn how we can build character qualities to honour God and bless others. Proverbs 6:6-6 encourages us to, "Go to the ant, you sluggard; consider its ways and be wise." As we observe creation, we'll notice how God has wired each creature with instinct and initiative. We'll ponder its ways and become wise as we strive to build similar character qualities within ourselves that'll sustain us through life.

Notebook Pages

You'll find four notebook pages per study; two pages are designed specifically for the weekly topic, while the other two pages are generic, allowing you to use them for observations unrelated to the topic of the week. They have been designed by a friend to be a blessing to you.

The note booking pages can be placed in plastic sleeves and filed as a nature journal reference or you could paste the page in an inexpensive botany exercise book. The child could 'journal' on the blank page opposite the pasted notebook page. Keeping a record of the season's investigations and observations is a rewarding exercise and one that can be enjoyed for years to come.

You Can Do It!

You may be wondering how on earth you're going to fit nature study into your busy schedule? Here are a few ideas to consider:

- Integrate subjects.
- Include **all** children together as each one works at their own level.
- Set standard 'academic work' Monday through to Thursday, leaving Friday free for nature exploration, expression, activities and art.
- Spread a seasonal theme across the span of a month by **diving in** and **immersing the family** in a **single** topic. You may feel that one week is just not enough to enjoy the study and cover all you'd like to know about a subject. **So feel free to linger a while as there's no need to keep up to your neighbour's brisk walk.**
- Schedule nature study over the course of a week and **dip your toes** in like this:

Monday	Tuesday	Wednesday	Thursday	Friday
Introduction as read aloud in Let's Get Started.	Read stories related to the weeks theme.	Poetry and Picture Study	Nature Ramble	Nature Journaling or Activities & Consider its Ways

Exploring the outdoors and creating fond memories with your children is a special opportunity which will nurture a love for all creation within their hearts as they glimpse at the magnitude of how big and awesome our God is.



Camouflage

Let's Get Started

Hide and seek is a thrilling game played in the animal kingdom between predator and prey where survival depends on camouflage.

Camouflage is a defence mechanism divinely designed by our Creator to enable prey to blend into its surroundings, or allow predators to conceal themselves as they stalk prey without being detected.

Camouflage is a type of colouration, pattern, shape or behaviour which depend on environmental factors that influence the concealment tactics of animals.

There are different types of camouflage used by animals to disguise themselves according to their habitat, the predators they'd face, or the prey they'd track.

Some camouflage types include:

- Background matching or concealing colouration which allow animals to blend into its surroundings and hide from predators. Certain animals have fixed camouflage such as the Tawny Frogmouth which blends in with the gum tree bark. Other animals have active camouflage which enable them to change their concealment colours at will depending on their background like the chameleon, cuttlefish or octopus.
- Warning colouration or aposematism which is the opposite of background matching. Aposematism makes predators aware of toxic or dangerous characteristics of prey such as the larva or monarch butterflies which are brightly coloured and eating one will cause an upset stomach.
- Disruptive colouration is the use of patterns, stripes, spots or shapes which break up the outline of an animal or conceal body parts to confuse predators. Some animals which use this type of camouflage are zebras, leopards, moths and butterflies.



Antlion Lacewing

Myrmeleon

- Disguise or mimicry where the animal is designed to take on the appearance of something else in its habitat like insects which look like leaves or sticks.
- Countershading where the top of the animal's body is darker while the underside is lighter. A great example of an animal which uses this type of camouflage are sharks. When seen from above they blend in with the dark waters of the ocean, and when noticed from below the waters, they blend in with the lighter shades of the ocean surface.
- Demonstrated through olfactory camouflage which is the ability to hide from predators by covering up their smell or emitting scents to attract prey.

Camouflaged creatures to investigate are:

[Bird-dropping spider \(*Celaenia excavata*\)](#)

[Wolf Spider \(*Lycosidae*\)](#)

[Green Tree Ant Spider \(*Cosmophasis bitaeniata*\)](#)

[Rufous Net-casting Spider \(*Deinopis subrufa*\)](#)

[Tawny Frogmouth \(*Podargus strigoides*\)](#)

[Leaf and Stick Insects \(Order Phasmatodea\)](#)

The process of animals who camouflage themselves for protection is not hard to understand when we realise that every one of them was intelligently designed by a Creator who has made all of creation and knows how each organism functions in its environment.

Further Exploring

[Camouflaged Wildlife: How Creatures Hide in Order to Survive](#) by Joe McDonald

[Clever Camouflage](#) by Kimberley Jane Pryor

[Animal Camouflage in the Ocean](#) by Martha E.H. Rustad

[Animal Disguises](#) by Emma Ryan

[Animal Camouflage](#) by Vicky Franchino

Related Internet Links

[Divinely Designed Defences | Answers in Genesis](#)

[Animals that Mimic Leaves | Thought Co](#)

[Stick and Leaf Insects: Order Phasmida](#)

[Camouflage | National Geographic](#)

[Camouflage Facts for Kids | Kiddle](#)

Nature Ramble

Search your backyard or park for creatures who play hide and seek. Notice which camouflage defence it uses and compare them with those of other creatures you find.

I wonder if your camouflaged creature is the predator, prey or both? Can you tell?

Investigating the camouflaged tactics of creatures reminds me of how intelligent our Creator is to have considered every tiny detail of His vast creation meticulously.

Literature Jaunt

[Can You Find Me?](#) By Gordon Winch

[With Nan](#) by Tania Cox and Karen Blair

[What Colour is Camouflage?](#) By Carolyn Otto | [Read Aloud](#)

[Twig](#) by Aura Parker

[Camouflage](#) by Bernard Stonehouse

[Secrets of Animal Camouflage](#) by Carron Brown | Shine A Light Books

[The Mixed Up Chameleon](#) by Eric Carle | [Read Aloud](#)

[Animals in Camouflage](#) by Phyllis Limbacher Tildes

[Animal Camouflage](#) by Rene Mettler

[The Chameleon Who Couldn't Change Colour](#) by Gail Clarke | [Read Aloud](#)

[Camouflage](#) by Bindi Irwin | Bindi Wild Adventures

Poetry Picnic

[Camouflage by Banjo Paterson](#)

Picture Study

[Camouflaged Tawny Owl by Manual Sosa](#)

Consider Its Ways

It's easy to believe in a God who created all the earth and heavens when we consider the amazing creatures He has intelligently designed like the Mimic Octopus ((*Thaumoctopus mimicus*) that was recently discovered near the Sulawesi Island, in Indonesia. The complex abilities of this octopus have evolutionists wondering how it's able not only to change colour, shape and texture to impersonate things, but also, how it decides exactly what to impersonate and when.

It's believed this creature is able to impersonate at least 15 different species. The octopus makes intelligent decisions as it discerns which personality to impersonate, like if it were to be attacked by a damselfish, the octopus will disguise itself as a banded sea snake which prey on damselfish. When we consider such perceptive creatures, we're reminded that our God is great.

"But ask the animals, and they will instruct you; ask the birds of the sky, and they will tell you. Or speak to the earth, and it will instruct you; let the fish of the seas inform you. Which of all these does not know that the hand of the Lord has done this? The life of every living thing is in his hand, as well as the breath of all mankind." Job 12:7-10

Digging Deeper

Young Students:

- Choose one of [these](#) camouflage science activities to understand the camouflage concept.
- Do [this](#) camouflage experiment to learn how hard it is for us to see camouflaged subjects and how easy it is to see opposite colours.
- Learn more about animals that play hide and seek [here](#).
- Dress up to blend into your surroundings and hide while another seeks you out. Take turns to hide.
- Find out more about animals who use trickery to pretend they're something else [here](#).
- Listen to [this](#) camouflage song.
- Watch how birds build camouflage nests to protect their eggs and chicks [here](#).
- Colour in the camouflaged notebook page.

Older Students:

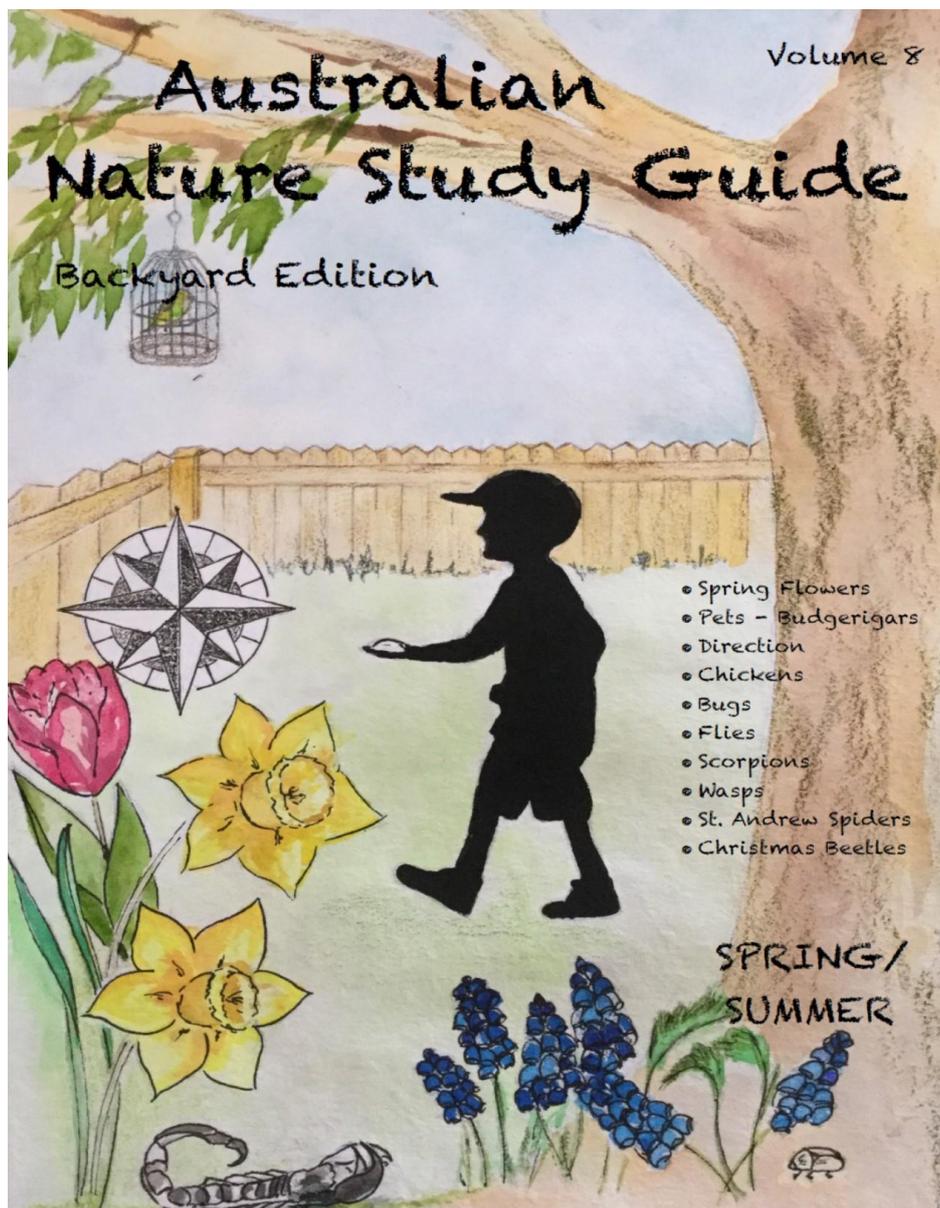
- Investigate how camouflage is used by the military. [Start here.](#)
- Find out what [Ghillie suits](#) are and why they're nicknamed 'yowies' in Australia.
- Define the word '[crypsis.](#)'
- Find out how the arctic fox or rabbit adapts its fur coat according to the season in order to camouflage itself. [Start here.](#)
- What's your favourite camouflaged animal? One way to tell people about it is to write a story or make a mini documentary on camera.
- Research the Dresser crab who 'dresses up' to disguise itself. [Watch this.](#)
- Create your own camouflaged creature using cardstock paper.
- Use the camouflaged notebook page to record your observations.

Oldest Students:

- Investigate aposematism or warning colouration. [Start here.](#)
- Research how chameleons change their skin colour. [Start here.](#)
- Learn how the cuttlefish, which is the master of disguise, defies evolution [here](#).
- Uncover the secrets of the Mimic Octopus which was recently discovered in 1998. It's the first creature ever observed to imitate colour, shape, texture, posture and behaviour of several species [here](#).

- Investigate how war ships were disguised in World War 1 & 2 with Dazzle camouflage. [Watch this.](#)
- Use the camouflaged notebook page to record your observations.
- Sketch your camouflaged subjects inside your nature journal.

I'm thrilled!!
to introduce the
Backyard Edition
of the
Australian Nature Study Guides
Spring/Summer
Volume 8
Term 4 2019



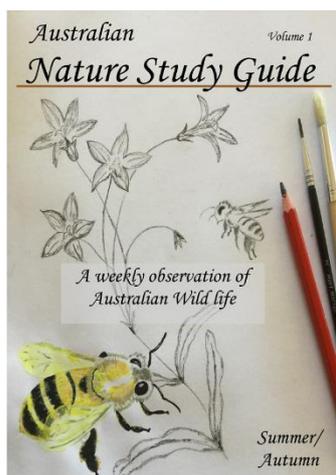
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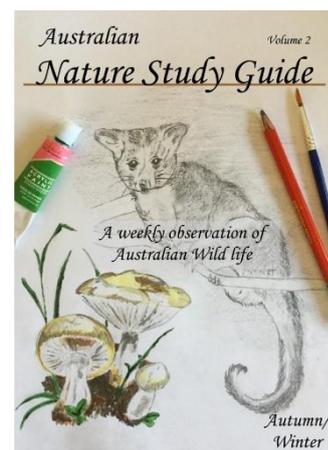
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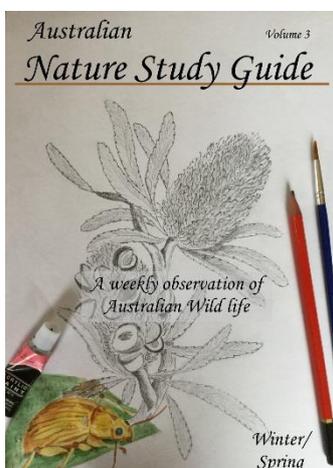
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