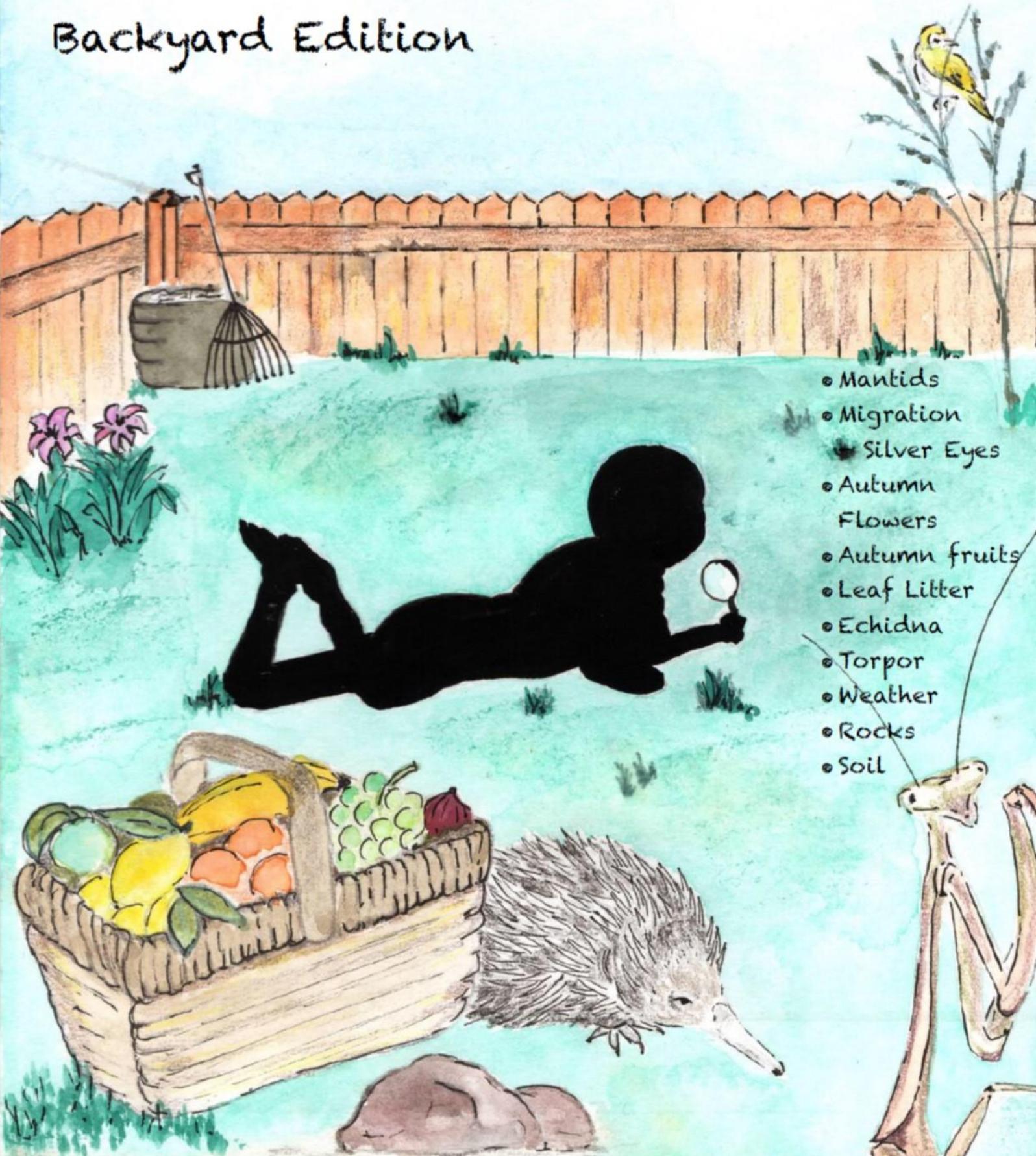


# Australian Nature Study Guide

Volume 6

Backyard Edition



- Mantids
- Migration
- Silver Eyes
- Autumn Flowers
- Autumn fruits
- Leaf Litter
- Echidna
- Torpor
- Weather
- Rocks
- Soil



AUSTRALIAN  
NATURE STUDY  
*GUIDEBOOK*

*Autumn and Winter*

*Volume Six*

*Backyard Edition*

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[www.naturestudyaustralia.com.au](http://www.naturestudyaustralia.com.au)

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*Edited by Elizabeth*

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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.

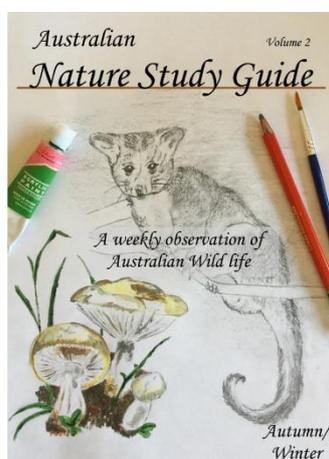
[Become a part of our email community](#) for additional support and free resources that'll enrich your nature study encounters by subscribing to our monthly Nature Study Journal [here](#).

Pop in and visit me at:

[Instagram: nature study australia](#)

[Facebook: Nature Study Australia](#)

[Nature Study Australia Forum](#)



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

[Autumn/Winter 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 [Autumn/Winter nature study guide](#), we observed turtles, searched for earthworms, explored the outdoors with our senses and investigated autumn leaves. We also searched for possums and enjoyed wattle blossoms. 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 mantids, echidnas and leaf litter critters. We'll learn interesting facts relating to migration and torpor while investigating weather, rocks and soil. We'll prepare for spring by planting autumn bulbs and bake apple pie.

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.



# TAKING THE PLUNGE

## *Autumn Migration*

### Let's Get Started

Migratory birds have the fascinating ability to find their way with an inbuilt compass which gives them a sense of direction that guides the birds to their destination. Birds innately know their current location and the direction they must fly to reach their destination.



Image: Stephanie Buijs

Silvereye

*Zosterops lateralis*

How birds navigate is a mystery and there are a few theories, some suggest birds use the sun and stars to navigate while others say they use sightings of landmarks like coastlines, mountains and rivers. Other theories suggest that birds have the ability to monitor the earth's magnetic field through minute, iron rich mineral particles located on their beaks known as magnetite which acts like a compass while another theory claims birds are able to see the earth's magnetic fields with their eyes.

Each species of migratory birds follow traditional routes planned by their ancestors which may be slightly altered at times due to food scarcities. Most birds plan for their migration by eating rich sources of food that is stored in their bodies as a high-energy fat. This special fat will sustain them for several weeks while migrating. Other migratory birds will fuel their bodies en route during the day while flying at night to avoid predators.

The birds follow their flyways predictably which enables us to monitor their migratory behaviour, routes and status by observing them at 'landing stations.'

Birds migrate in spring to breed, nest and feed on insect populations when the days are long and filled with sunlight. In autumn, when the days begin to shorten, the birds will prepare to avoid the cold and food shortage by migrating once again to a warmer climate. The length of day stimulates migration.

Birds which do not migrate are known as permanent residents who are able to survive under harsh, cold conditions scavenging for food.

There are three kinds of migratory birds:

- Summer residents fly to warmer climates in the spring and return in autumn.
- Winter residents migrate south for the colder months of the year.
- Transient visitors are birds who pass through on their migrating journey.

Local migrating birds to observe are the:

[Silvereye](#) (Zosterops lateralis)

[Sacred Kingfisher](#) (Todiramphus sanctus)

[Rainbow Bee-eater](#) (Merops ornatus)

[Scarlet Honeyeaters](#) (Myzomela sanguinolenta)

[White-eared Honeyeater](#) (Lichenostomus leucotis)

[White-winged Triller](#) (Lalage sueurii)

[Black-faced Monarch](#) (Monarcha melanopsis)

[House Sparrow](#) (Passer domesticus)

[Gang-gang Cockatoo](#) (Callocephalon fimbriatum)

International migrators to observe are the:

[Eastern Koel](#) (Eudynamys orientalis)

[Channel-billed Cuckoo](#) (Scythrops novaehollandiae)

[Satin Flycatcher](#) (Myiagra cyanoleuca)

[Latham's Snipe](#) (Gallinago hardwickii)

[White-throated Needletail](#) (Hirundapus caudacutus)

Every year, millions of shorebirds fly between the Arctic and Australia. The shore birds travel a minimum of 25,000 kilometres every year as they migrate along their pathways. During their lifetime, they may fly farther than the distance

between earth and the moon. The boom time for migrating shore birds in Australia is during August and September.

The wetlands are home for these seasonal shorebirds and they can be found in mangroves, estuarine mudflats, beaches and rocky shores feasting on worms, molluscs, fish and crabs.

Shorebirds to observe are the:

[Eastern Curlew](#) (Numenius madagascariensis)

[Sharp-tailed Sandpiper](#) (Calidris acuminata)

[Bar-tailed Godwit](#) (Limosa lapponica)

[Whimbrel](#) (Numenius phaeopus)

[Red-necked Stints](#) (Calidris ruficollis)

[Double-banded Plover](#) (Charadrius bicinctus)

[Grey Plover](#) (Pluvialis squatarola)

Migration is the movement of an animal from one region or habitat to another and it happens at regular periods of time and seasons. The word migration comes from the Latin word migratos which means 'to change.'

Many animals migrate like the [Wildebeest in Africa](#), [Caribou in Alaska](#) and the [Humpback Whales of Antarctica](#). Other amazing migrations to investigate are that of the [Monarch butterfly](#) and [locusts](#).

### **Further Exploring**

[Amazing Animal Journeys](#) by Chris Packham

[Why Do Animals Migrate](#) by Bobbie Kalman

[Why Do Birds Cross the Oceans](#) by Baby Professor

## Related Internet Links

[Australian Wildlife Journeys | Songbirds](#)

[Silvereye | Birds in Backyards](#)

[Flying for Their Lives | Australian Geographic](#)

[Migratory Waterbirds | Department of Biodiversity, WA](#)

[Migratory Birds Make Journey from Alaska to Adelaide for Summer Vacation](#)

[Whale Migration](#)

[An Autumn Phenomenon](#)

## Nature Ramble

Migrating birds conserve their energy by checking out when the weather is fine, so the best time to spot a migrant may be on an overcast and slightly windy autumn day. Observe the skies for clues of migrating birds that gather on wires, fences, in fields and occasionally swarm in the skies.

Observe your backyard for any permanent resident birds that visit year round. Do you notice any new guests to the backyard? Are there any winter residents returning or summer residents planning to leave? Autumn migration is often subtle, so you'll need to be alert to notice the changes in bird behaviours around you.

I wonder if you'll spot transient birds on their flyways passing over Australia? Perhaps you'd like to visit an estuary nearby to observe transient 'tourists' resting and fuelling before continuing their journey onward?

Migrating animals remind me of people who migrate from one land to another for different reasons. Some people leave their war torn countries hoping for a peaceful future in another country. Have you met an immigrant lately? Be sure to welcome them into your country and invite them to tell you their story.

## Literature Jaunt

[The Journey: Stories of Migration](#) by Cynthia Rylant | [Read Aloud](#)

[Circle](#) by Jeannie Baker

[How Do Birds Find Their Way](#) by Roma Gans

[When Jessie Came Across the Sea](#) by Amy Hest

### Poetry Picnic

[Migration! Migration!](#) (A Scholastic Teachable Print: click on 'see inside' link to view poem).

### Picture Study

[Migration Series by Gail C. Boyajian](#)

### Consider Its Ways

As I consider migration, I'm reminded of the story of Ruth. She was a young woman from Moab and the great-grandmother of King David, an ancestor of Jesus. Forsaking her own people after the death of her husband she chose to assist her mother-in-law, Naomi who returned to Bethlehem. A relative of Naomi named Boaz showed **compassion** to Ruth by preparing a way for her to glean wheat for bread. In the same way, we ought to show **compassion** to immigrants, widows and orphans. Read her story in the book of Ruth. Discuss ways you can show compassion and kindness to a new settler or to others who may be hurting and in need of support in your neighbourhood.

*"For the Lord your God is God of gods and Lord of lords, the great God, mighty and awesome, who is not partial and takes no bribe, who executes justice for the orphan and the widow, and who loves the strangers, providing them food and clothing. You shall also love the stranger, for you were strangers in the land of Egypt." Deuteronomy 10:17-19*

### Digging Deeper

Young Students:

- Watch [this](#) migration tutorial by Science for Kids.
- Listen to [this](#) migration song.
- Choose a migrating bird or animal to investigate. Discuss the reason for migration and the dangers they may encounter on their journey.

- Migration is a big move from one area to another and for a small animal or insect it can be a long journey. Pretend you're migrating and fly around your neighbourhood. Flap your arms as you walk. How long did it take before they became tired?
- Learn to identify the Silvereye bird by colouring in the notebook page provided and discuss its features, behaviours and migrating habits.

#### Older Students:

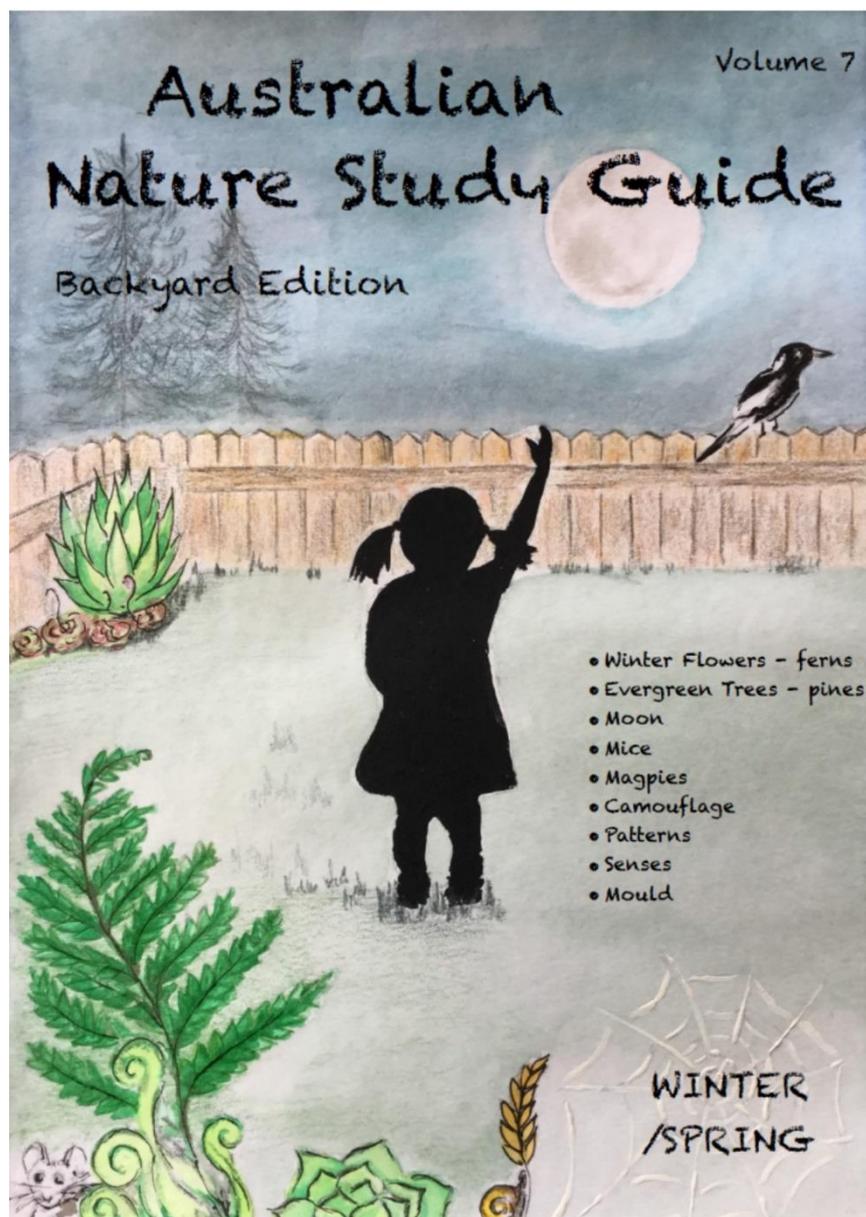
- Watch amazing animal migrations through land, sea and air [here](#).
- Investigate why birds fly in a V formation. Start [here](#).
- Research and discuss the dangers of migration.
- Create a migration poster board featuring your favourite animals.
- Capture migrating birds in your nature journal by sketching them and recording the details of time and weather.
- Some birds breed in Australia during spring and summer then leave the southern climate in winter. Find out where the Koel, Rainbow Bee-eater and the Satin Flycatcher go in winter.
- Record your backyard observations on the bird notebook page provided for you.
- Research insect migration [here](#) and write a report explaining the types of migration.

#### Oldest Students:

- Take a look at [these](#) awesome bird migration video clips.
- Research the mystery of bird navigation. Start [here](#).
- Investigate the process of bird banding. Start [here](#).
- Create a project featuring the great [Arctic Tern](#) who flies from the Arctic to Antarctica enduring the longest migration of any animal on earth.
- Some species spend summer in Australia and breed in other parts of the world. Find out where the Japanese Snipe and White-throated Needletail breed.
- Choose a migratory bird to feature in your nature journal. Record time, place and behaviour.
- Record your backyard observations on the bird notebook page provided for you.
- Design a map showing the flyways of the Arctic Tern.

- Watch the [DVD 'Flight: the genius of birds'](#) by Illustra Media.

*I'm thrilled!!*  
*to introduce the*  
*Backyard Edition*  
*of the*  
Australian Nature Study Guide  
**Winter/Spring**  
**Volume 7**  
**Term 3 2019**

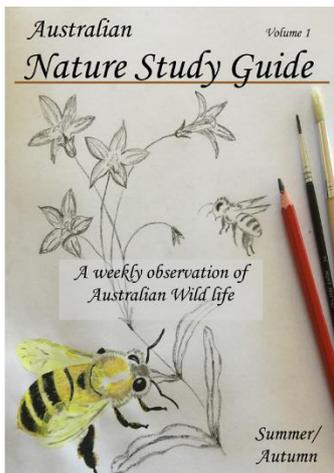


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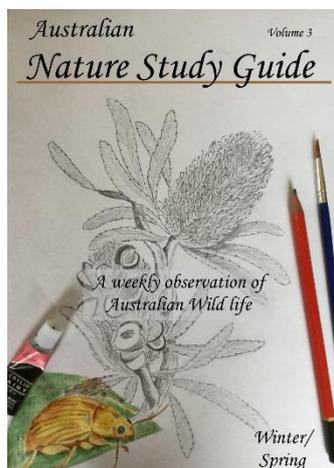
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