

Discovering Swift Parrots

The Journey Begins

YEAR 3–4 EDUCATION KIT



MURRUMBIDGEE
Landcare
INCORPORATED

© Murrumbidgee Landcare Inc. 2024

This publication has been prepared as a resource for schools. Schools may copy, distribute and otherwise freely deal with this publication, or any part of it, for any educational purpose, provided the Murrumbidgee Landcare Inc. is acknowledged as the owner.

Written and designed by PeeKdesigns for Murrumbidgee Landcare Inc.

Cultural acknowledgements

Murrumbidgee Landcare acknowledges the Wiradjuri people who are the Traditional Custodians of the Land on which we work. We pay our respects to Elders of the Wiradjuri Nation, past, present and emerging, and extend that respect to all First Nations Elders.

We celebrate the diversity and strength of Aboriginal cultures and value their contribution to caring for our Land.

Disclaimer

The information contained in this publication is based on knowledge and understanding at the time of writing (January 2024). However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information.

Project partners



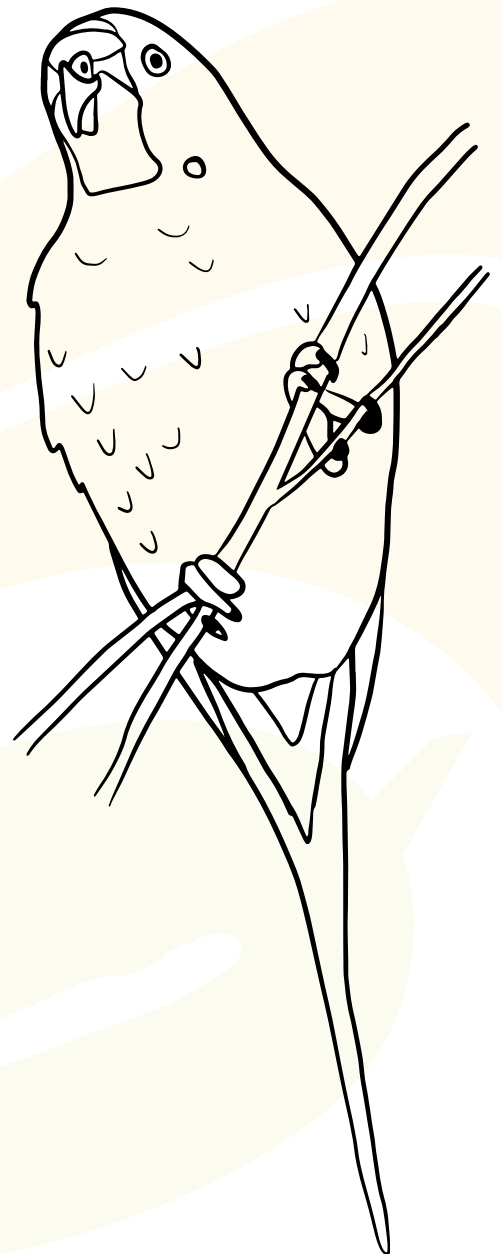
About the project

Discovering Swift Parrots is a project developed in partnership between Murrumbidgee Landcare Inc., Wildlife Drones, NSW Government, Australian National University, Birdlife Australia, Bush Heritage Australia, Greening Australia, Central Coast Council and PeeKdesigns. The project consists of a suite of resources developed for primary schools to raise awareness of the plight of one of Australia's beautiful and unique birds, the swift parrot.

Discovering Swift Parrots empowers educators to teach students about this precious Australian bird while fostering environmental responsibility. Aligned with both the New South Wales and Australian Curriculum, this resource supports a holistic educational approach.

Contents

Discovering Swift Parrots: The Journey Begins	4
Lesson scope and sequence	5
1. Meet our swift	8
2. Survival and habitat	18
3. Migration patterns	26
4. Under threat	37
5. Conservation efforts	42
Glossary	47



Discovering Swift Parrots: The Journey Begins

Welcome to "Discovering Swift Parrots: The Journey Begins," a teaching resource tailored for Year 3 and 4 students (NSW Stage 2). This resource introduces the journey exploring the world of the critically endangered swift parrot, offering a comprehensive unit that can also be used as individual activities.

This resource provides the opportunity to explore a range of topics associated with the swift parrot, including identification, physical characteristics, migration, habitat, diet, breeding, life cycles, conservation status, threats and recovery.

Subjects covered span across Science, Geography, Creative Arts, and Physical Education. The lesson scope and sequence, outlined in the following pages, detail each section's activities and corresponding New South Wales and Australian Curriculum outcomes.

There are many new or difficult terms used throughout the resource. These have been identified and a glossary has been included. This glossary could be used in the class for spelling and comprehension activities.

By the end of this unit of work, students will have a good understanding to create a final project that has them 'tell the world' about the swift parrot.

Key features

- The Discovering Swift Parrots project consists of two teaching booklets featuring comprehensive fact and activity sheets.
 - Discovering Swift Parrots: The Journey Begins (Year 3–4 education kit)
 - Discovering Swift Parrots: A Closer Look (Year 5–6 education kit)
- Interactive resources designed for engaging exploration:
 - What is a parrot?
 - Identifying swift parrots
 - The migration of Pippa, the swift parrot



Swift parrots (*Lathamus discolor*) are one of Australia's rare species of parrot and are listed as critically endangered under Australian Government legislation.

In 2023, it was estimated that less than 500 birds live in the wild. Without conservation efforts, this unique and iconic species may become extinct.



Lesson scope and sequence

Section	Description	Curriculum
<p>1. Meet our swift!</p> <p>Time 3 lessons</p>	<p>This section is an introduction to the swift parrot. If possible, invite a guest speaker to talk about the swift parrot.</p> <p>Students are introduced to parrots as a type of bird and learn some identifying features of parrots compared to other species of bird.</p> <p>Students learn to identify features of a swift parrot and compare them to other parrot species. These include physical and behavioural features.</p> <p>Resources</p> <ul style="list-style-type: none"> • Fact sheet: Meet the swift parrot • Fact sheet: What is a parrot? • Fact sheet: Identifying the swift parrot • SmartBoard to play videos and audio • Storybook: Swifty the super-fast parrot • What is a parrot interactive quiz • Identifying swift parrots interactive <p>Activities</p> <ul style="list-style-type: none"> • Easy origami swift parrot • Who is the parrot? • Your swift parrot 	<p>Science</p> <p>ST2-4LW-S</p> <p>Visual Arts</p> <p>ACAVAM111</p> <p>Terms</p> <ul style="list-style-type: none"> • nectivorous • migratory bird • critically endangered • parrot • zygodactyl feet • plumage • physical characteristics • behavioural characteristics • ornithologist
<p>2. Survival and habitat</p> <p>Time 3 lessons</p>	<p>This section looks at how animals and plants need each other and their surroundings to survive. It introduces the idea of a habitat as a home and explains what it's made of. Students learn that habitats and wildlife depend on each other.</p> <p>Students investigate a swift parrot's love for sugary, high-energy food. It explains how pollination is important for plants and animals, and how swift parrots help with this. Students also learn about nectar and lerps, and why swift parrots need so much energy. They look at the life cycle of a eucalypt tree and the interconnectedness of woodlands and swift parrots.</p> <p>Resources</p> <ul style="list-style-type: none"> • Fact sheet: It's all connected • Fact sheet: The sweet tooth beak • Fact sheet: Forest pollinators <p>Activity</p> <ul style="list-style-type: none"> • It's all connected • Flowers and their secrets • My flowers 	<p>Science</p> <p>ST2-4LW-S ACSSU072 ACSSU073</p> <p>Terms</p> <ul style="list-style-type: none"> • environment • survival • habitat • nectivorous • nectar • lerps • pollen • pollinators

Section	Description	Curriculum
<p>3. Migration patterns</p> <p>Time 3 lessons</p>	<p>An introduction to the term migration and what it means to be a migratory bird. Provides a closer look at the swift parrots' time in Tasmania during summer and on the mainland during winter.</p> <p>Students will learn some of the reasons birds migrate, the environmental cues they use and the habitats they seek. Students will complete the life cycle of the swift parrot.</p> <p>Using the fact sheets as a teaching aid, students apply their understanding about the swift parrot migration through a relay game and interactive online activity.</p> <p>Resources</p> <ul style="list-style-type: none"> • Fact sheet: The bird likes to move! • Fact sheet: Summertime in Tasmania • Fact sheet: Wintertime on the mainland <p>Activity</p> <ul style="list-style-type: none"> • Migration relay • Life cycle of a swift • Colour my life 	<p>Science</p> <p>ST2-4LW-S ACSSU072</p> <p>Physical Education</p> <p>PD2-4 PD2-5 ACPMPO43 ACPMPO45</p> <p>Terms</p> <ul style="list-style-type: none"> • migratory bird • mating • nesting • woodlands • blue gum • hollows • mature trees • eucalypt • life cycle
<p>4. Under threat</p> <p>Time 2 lesson</p>	<p>Introduces the concept that when an animal or plant population drops to unhealthy levels we classify it as a threatened species. Introduces the conservation status levels of threat.</p> <p>Students learn about the threats to swift parrots and how they are classed as a critically endangered threatened species. Students improve their understanding of how woodlands and swift parrots are interdependent.</p> <p>Resources</p> <ul style="list-style-type: none"> • Fact sheet: What does it mean to be threatened? • Fact sheet: Threats to swift parrots <p>Activity</p> <ul style="list-style-type: none"> • Defining threatened species • Know the threats crossword 	<p>Science</p> <p>ST2-4LW-S ACSSU073</p> <p>Terms</p> <ul style="list-style-type: none"> • population • threatened • conservation status • critically endangered • habitat loss • climate change • disease • competition • predation • drought • illegal wildlife trade

Section	Description	Curriculum
<p>5. Conservaiton efforts</p> <p>Time 2 lessons</p>	<p>Teaches students about the various ways we can help the plight of the swift parrot. Shows them that everyone can do something to help. Introduces the concept that people must work together to pool their knowledge and come up with the best strategy to help threatened species like the swift parrot. Uses the case study of Wildlife Drones as an example of Australian ingenuity leading the world in tracking wildlife.</p> <p>Students learn how people can work together to influence the protection of threatened species. Students learn about how advances in technology like drones can help us more easily monitor wildlife populations. Students apply their knowledge in a creative communication project.</p> <p>Resources</p> <ul style="list-style-type: none"> • Fact sheet: Helping swift parrots • Fact sheet: A plan for conservation • Fact sheet: Tracking with drones <p>Activity</p> <ul style="list-style-type: none"> • Tell the world 	<p>HSIE — Geography</p> <p>GE2-1 GE2-2 ACHASSK088 ACHASSK072</p> <p>English</p> <p>EN2-OLC-01 EN2-VOCAB-01 EN2-CWT-03 EN2-HANDW-02</p> <p>Terms</p> <ul style="list-style-type: none"> • land management • hollows • bushland • communities • conservation • recovery plan • government • monitor • raise awareness • drone • tracking • population

1. Meet our swifty



Teacher's notes

Meet the swift parrot!

- Introduce the swift parrot using the fact sheets and videos.
- **Activity:** Make an origami of a swift parrot.

What is a parrot?

- Guide students through the distinguishing features of parrots and what makes them unique.
- **Activity:** Students identify the parrot features.
Answers: 1: B. 2: A. 3: C.

Identifying the swift parrot

- Go through the fact sheets and videos to look at the swift parrot with more detail.
- **Activity:** Using the activity sheet as a template, students make their own poster of the swift parrot and its features.
Answers: A: Colourful face. B: Clawed feet. C: 25 cm. D: Red under tail; E: Strong, hooked beak. F: Vibrant feathers. G: Pointed tail.

What you need

- Copies of the activity sheets
- SmartBoard for playing videos
- Origami paper, or other square paper
- Parrots ID Guide
- Book: Swiftly the super-fast parrot (optional)



Meet the swift parrot!

Small and colourful

The swift parrot, also known by its scientific name *Lathamus discolor*, is a beautiful and unique bird that is native to Australia. It is a small parrot with bright and colourful feathers, making it a real sight to behold!

You can recognise the swift parrot by its special alarm sound, its sleek body, its pointy tail and the flashes of bright red you can see when it spreads its wings.

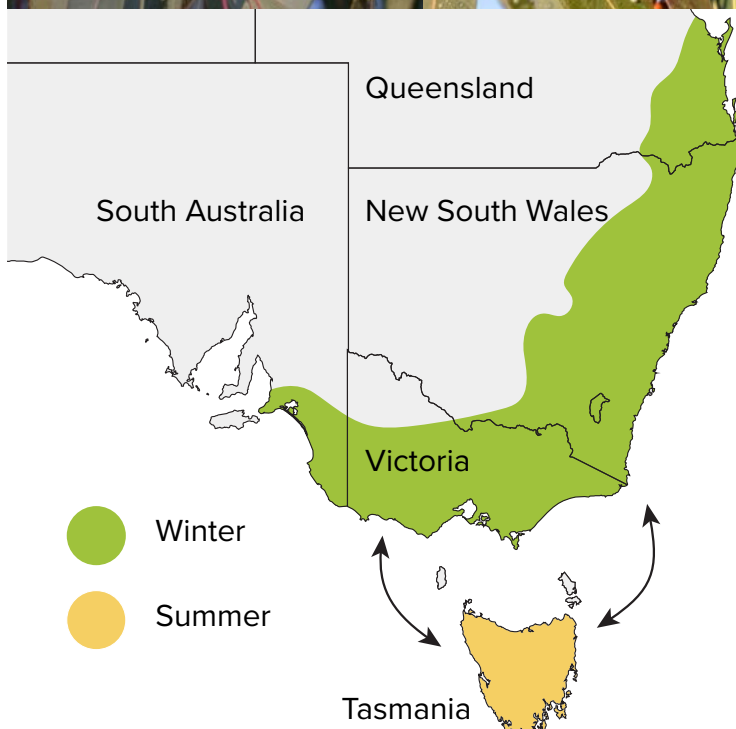
The swift parrot is a little bird that, like its name suggests, can fly really fast! In fact, it is the fastest parrot in the world, being clocked at up to 88 kilometres per hour.

Sweet tooth beak

They love to drink nectar from eucalypt flowers and eat lerps, a type of honeydew treat left by insects. This makes it a **nectivorous** feeder.



Photos: Swift parrot (G. Dabb);
flowers and lerps (Deb Sullivan)



Long distance travellers

Swift parrots are a **migratory bird** that travel long distances each year. The entire population spend the summer months in Tasmania before migrating across Bass Strait to the Australian mainland for the winter.

They can travel up to 2,500 kilometres each year as they travel across a range stretching from South Australia, through Victoria and eastern NSW, up to south-eastern Queensland.



Photo: Swift parrot (Mick Roderick)

Endangered

The swift parrot is listed as **critically endangered** due to its population numbers being so low. There is thought to be as few as 500 swift parrots left in the wild, which is incredibly low. This has been caused by habitat loss, predation and competition for resources.

For the swift parrot to survive we have to work together in our conservation efforts to protect them and help them flourish once again.



Scan or click to watch a video introducing the swift parrot



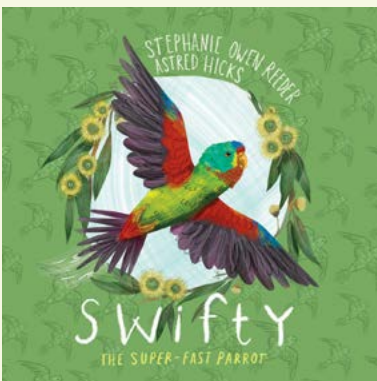
Scan or click to watch a video monitoring swift parrots



Scan or click to watch a video showcasing swift parrots



Scan or click to watch a video about protecting swift parrots



Swiftly the super-fast parrot

Fly with Swiftly on the swift parrot's challenging migration journey following the blossom trail.

A captivating story of the remarkable, but critically endangered, swift parrot—the fastest parrot in the world!

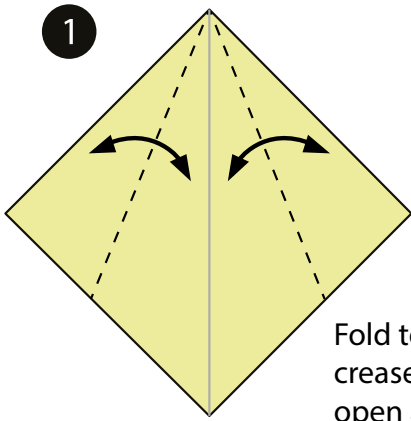
Available at
CSIRO Publishing

Scan or click
QR code to buy

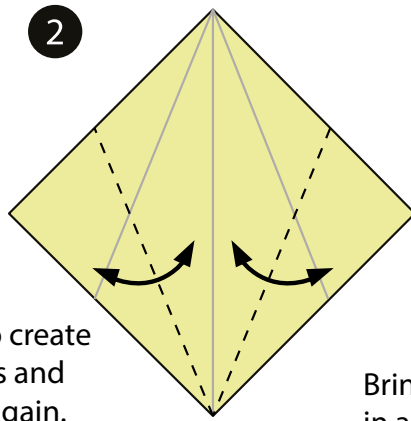




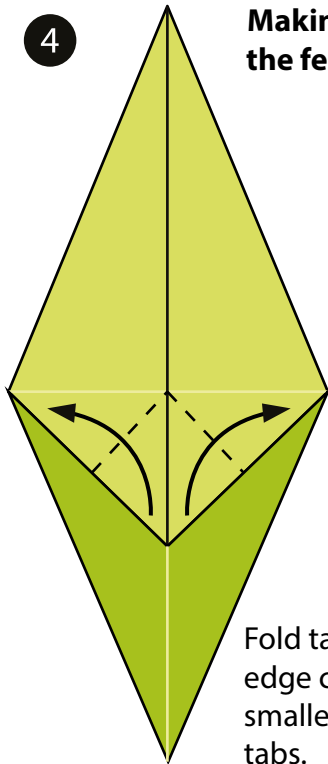
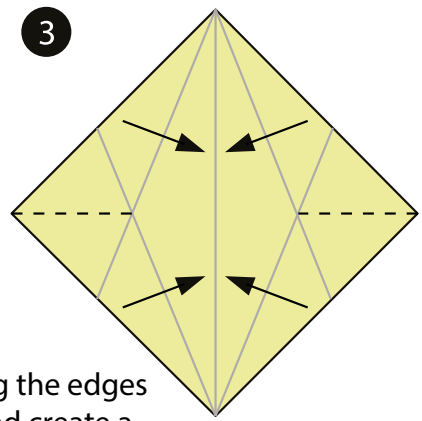
Easy origami swift parrot



1
Fold to create creases and open again.

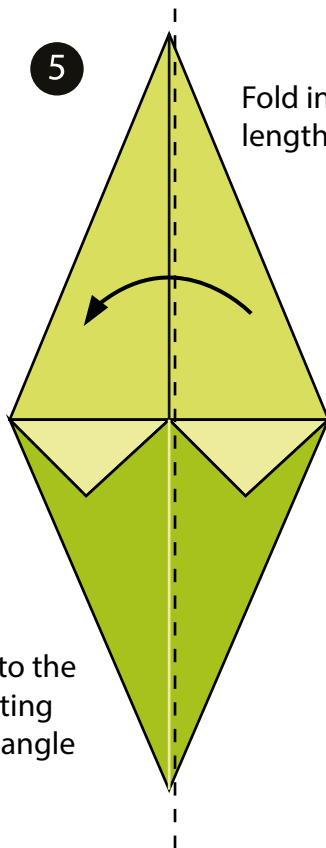


2
Bring the edges in and create a diamond with triangle tabs at the centre.



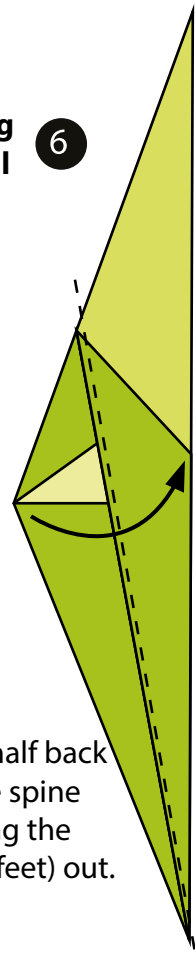
4
Making the feet

Fold tabs to the edge creating smaller triangle tabs.



5
Fold in half lengthways.

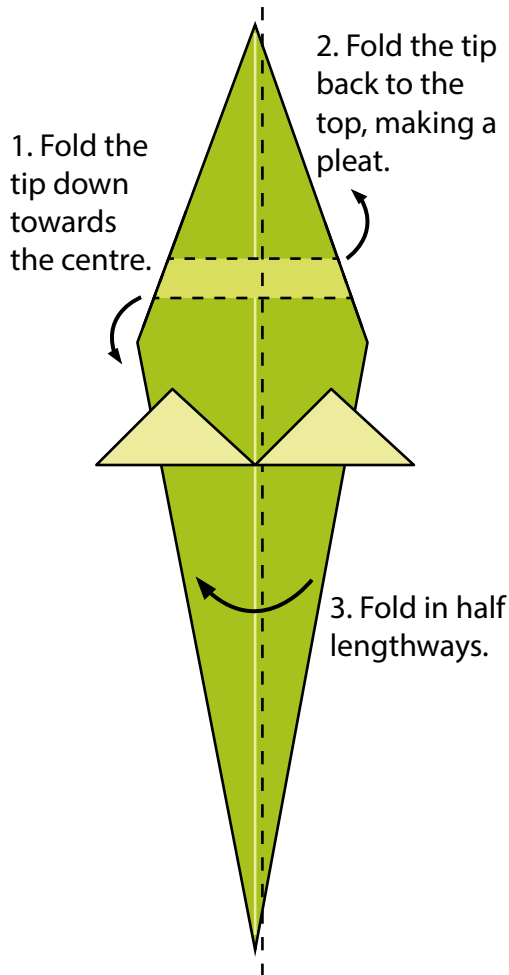
Making the tail



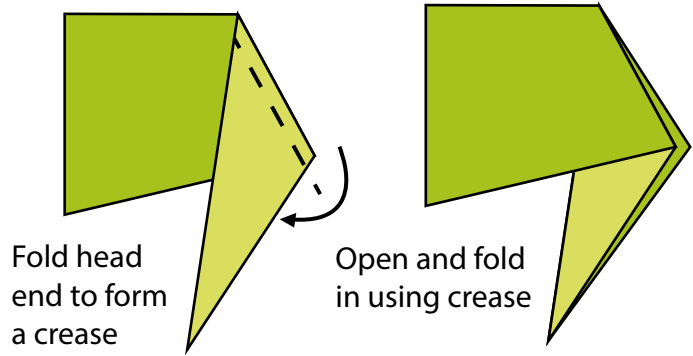
6
Fold half back to the spine leaving the tabs (feet) out.



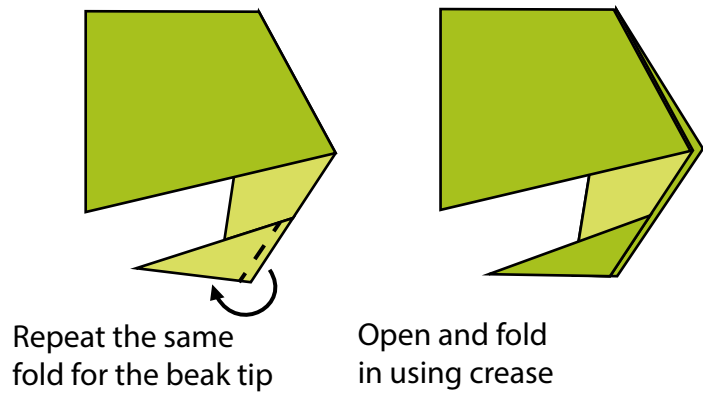
7 Making the body



8 Making the head

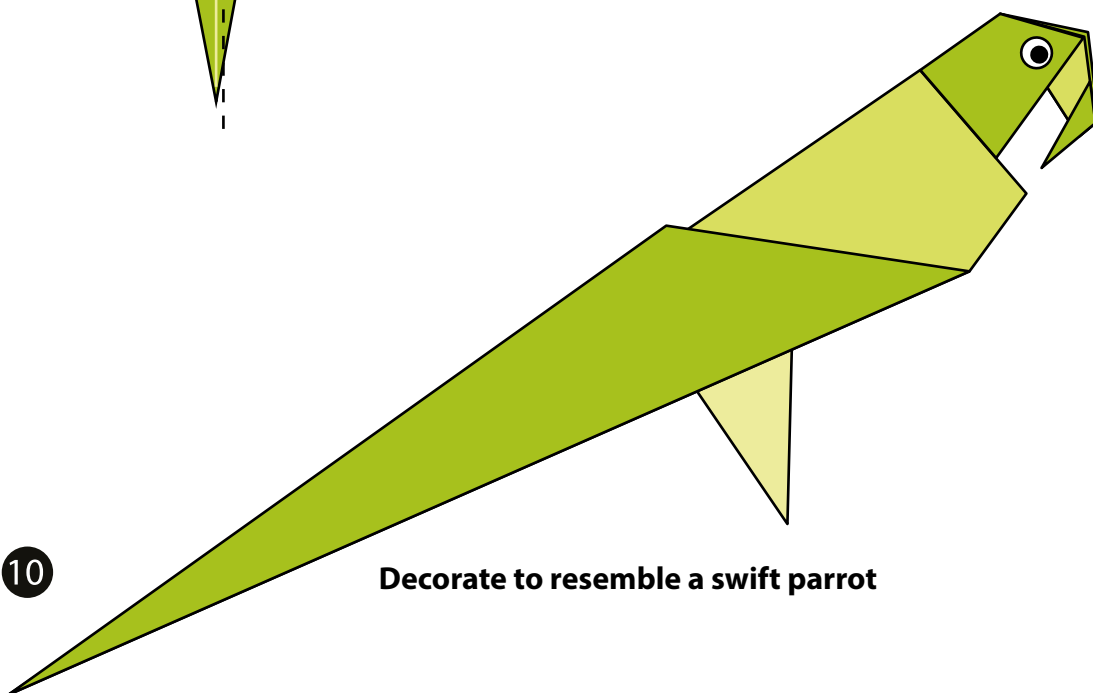


9 Making the beak



10

Decorate to resemble a swift parrot





What is a parrot?

You have had a brief introduction to our star species the swift parrot, but what exactly is a parrot?

Parrots are a colourful and clever type of bird that can be found in Australia, South America, Central America, Asia and Africa. There are nearly 400 different types (species) of parrots in the world.

In Australia, we have 56 species of parrots from two families: true parrots (Psittacoidea) and cockatoos (Cacatuoidea). Of these, 40 types of Australian parrots are found nowhere else in the world.

Parrots can be found in different habitats throughout Australia ranging from tropical rainforests in the north, the grasslands of the outback, to the coastal regions and temperate woodlands.



Features of a parrot

Photo: Rainbow lorikeet

Thick, strong, hooked beaks for cracking seeds, nuts and fruits.

Distinguishing calls.

Sturdy bodies, short necks and strong legs (relative to their size). An upright stance.

A large brain. They have been known to use simple tools and mimic sounds.

Vibrant feathers that are often colourful.

Clawed feet with two toes facing forward and two toes facing backward, known as **zygodactyl feet**. This is very useful for climbing and grasping.



Scan or click
QR code to watch

Parrots – Living with
Aussie Wildlife



Photos: Swift parrot (G. Dabb); all others (Kelly Coleman)



Who is the parrot?

Use the fact sheet 'What is a parrot?' to help you identify the parrots.

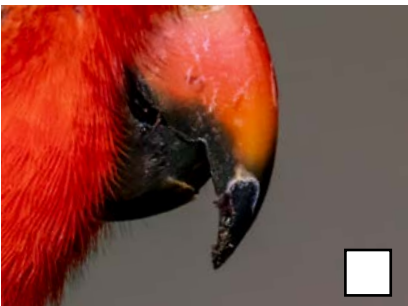
1. Who has parrot feet? Tick the correct photo.

Why do you think this is the parrot?



2. Who has a parrot beak? Tick the correct photo.

Why do you think this is the parrot?



3. Who has parrot feathers? Tick the correct photo.

Why do you think this is the parrot?



Photos: Kelly Coleman



Identifying the swift parrot

We are lucky to have so many types of parrots in Australia. These wonderful birds have bright, colourful **plumage** (feathers), including many with shades of bright green as their primary colour.

So, the big question is how do we learn to tell the difference between our star species, the swift parrot, and other similar looking parrots? When looked at closely each parrot has **physical and behavioural characteristics** that help us tell the difference between them.

Let's have a look at the swift parrot!

Learn how to tell the difference between a swift parrot and other parrots with this ID Guide



Scan or click to download

Colour

The swift parrot's main body colour is bright green, just like a lot of Australian parrots. This means we need to look at the details of their other colours and where they are on the body, so we can identify it.

Small amount of blue on the forehead.

Red above the beak.

Bright red on mask/throat surrounded by yellow fringe.

Males have a bright red forehead and throat, while females have a paler red colour.

Yellow to red patches on the shoulder.

Blue edges to the wings.

Red under the wing and tail. This is one of the important identifiable features.

Maroon pointy tail.

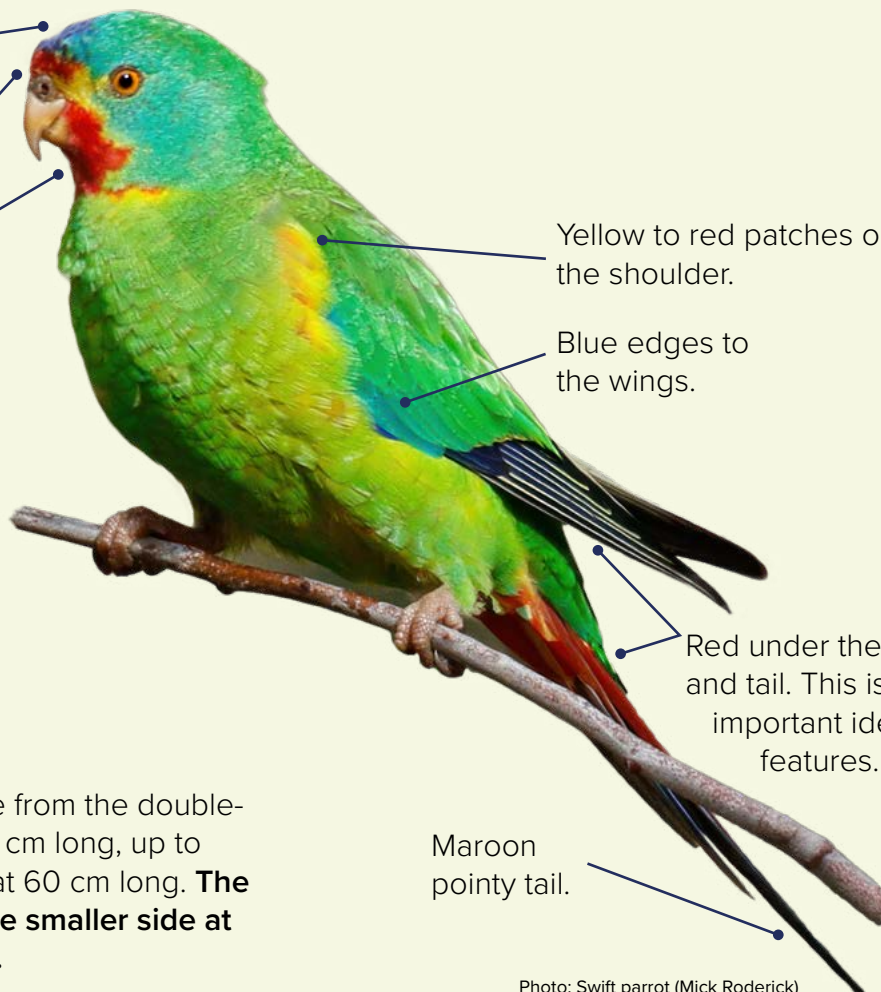


Photo: Swift parrot (Mick Roderick)

Size

Parrots range in size from the double-eyed fig parrot at 14 cm long, up to the palm cockatoo at 60 cm long. **The swift parrot is on the smaller side at around 25 cm long.**



Movement

Fast and agile flyers, these parrots are known for their swift flight and acrobatic manoeuvres. **They are the world's fastest parrot!**

Photo: Flying flock (N. Lazarus)

Sound

One of the most important things used to identify birds are their wonderful calls. The swift parrot is no different.

It has unique calls that are different to other parrots. The usual contact call in flight is a **loud, metallic 'chit chit'** repeated three or four times in succession. They also make a soft chattering when feeding.

Even if you only catch a glimpse of a bird and couldn't tell for sure whether it was a swift parrot, you would be able to identify it if you heard its call.



Scan or click QR code to listen to their flight call (top) and chattering (bottom)



Photo: Swift parrot pair (Dave Curtis)

Get more swifty!

Natural history photographer and **ornithologist**

Graeme Chapman has a great collection of Australian bird calls that he has recorded.

Visit his website and listen to his swift parrot call and some of the other parrots.

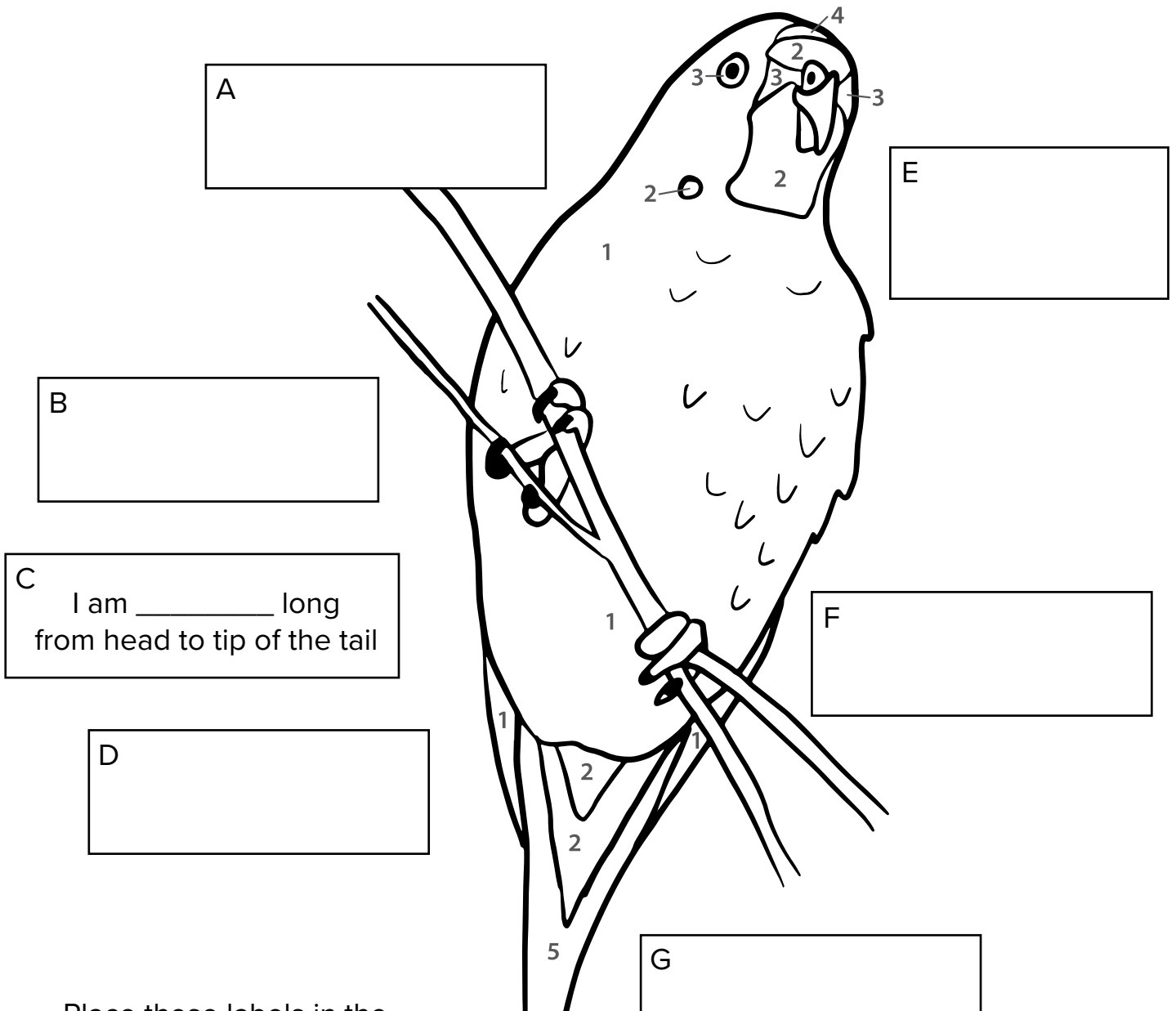
Do you think they all sound the same? With a bit of practice do you think it would be possible to tell the difference between parrots simply by listening to their call?



Scan or click QR code to listen to bird calls on Graeme Chapman's website



Your swift parrot



C I am _____ long
from head to tip of the tail

Place these labels in the correct boxes. Draw an arrow pointing to the feature.

- Strong, hooked beak
- Clawed feet
(two toes facing forward,
two toes facing backward)
- Pointed tail
- Vibrant feathers
- Red under tail
- Colourful face

Colour by numbers.

1. Green
2. Red
3. Yellow
4. Blue
5. Maroon / dark red

2. Survival and habitat



Teacher's notes

It's all connected

- Go through the fact sheet as a class.
- **Activity:** Use the fact sheet to answer the activity sheet questions.
Answers: 1: Yes. 3: Land, Water, Plants, Animal, Air Light. 4: A–Light; B–Air; C–Animals; D–Plants; E–Land; F–Water.

Having a sweet beak

- Go through the fact sheet as a class. Introduce the swift parrot's food preferences and discuss what it would be like to live off sugary foods all the time.

Forest pollinators

- Introduce pollinators to the class and why they are important for forests.
- **Activity:** *Flowers and their secrets* involves collecting flowers from the school grounds and inspecting them. Students draw and label four different flowers, choosing a name they will remember (this could be an actual common name, Aboriginal name or a made-up name).
Answers: nectar; eucalypt flowers; food; energy; migration; pollinators; woodlands; pollen.

What you need

- Copies of the activity sheets
- Magnifying glasses
- Flowers

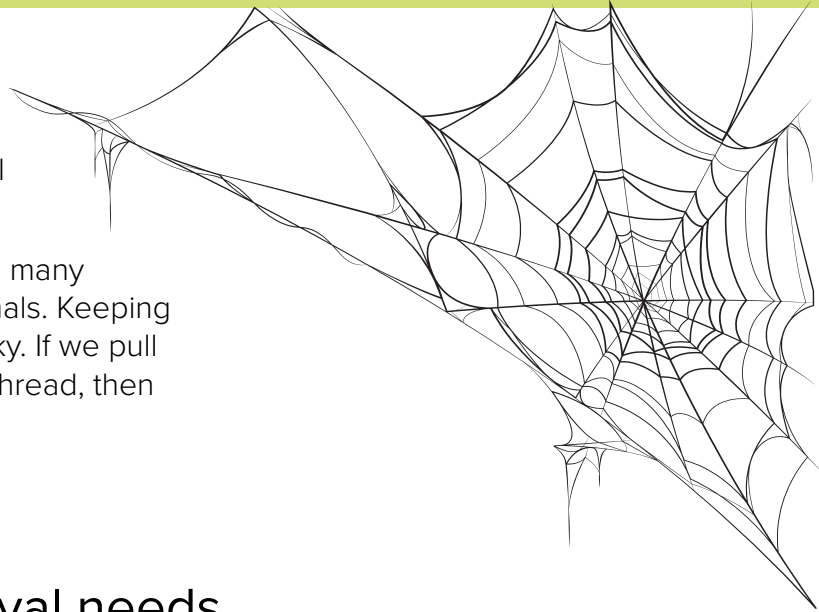


It's all connected

A web of connections

Understanding how living things depend on each other and their environment for survival is like solving a fascinating puzzle.

Nature is like a giant spider's web. There are many threads connecting different plants and animals. Keeping the web together and in balance can be tricky. If we pull at any of the threads in the web, or break a thread, then we will see an impact on the entire system.



Survival needs

The swift parrot, a fascinating bird, calls two different places home – Tasmania and the Australian mainland. Each place provides essential things the parrot needs to survive:

- In Tasmania, hollow-bearing trees are crucial for nesting.
- On the mainland, the swift parrot relies on trees with plenty of nectar and lerps for food.

What is a habitat?

A habitat is like a natural home or environment where a specific animal or plant lives. It includes everything in that space, like the air, plants, food sources and other creatures living there.

Each habitat is special and perfect for the needs of the animals and plants living there. Habitats give animals what they need to stay alive: air, food, water and shelter.

Learning about their habitat is vital to understanding the swift parrot. Changes to its habitat can upset the balance and harm the species. It's crucial to keep their homes safe and healthy for them to survive and thrive.

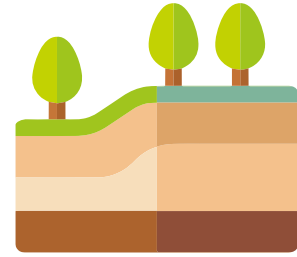
Photos: Feeding (David Cook); On a perch (Dave Curtis)



Key parts of any habitat

Land

Land is the ground beneath our feet. It's made up of soil, rocks and other things. It helps plants grow and gives homes to animals.



Water

All living things, like plants and animals, need water to live. It's super important for them! Water provides a home to many plants and animals, like fish. It also helps keep the Earth at the right temperature for life to survive.



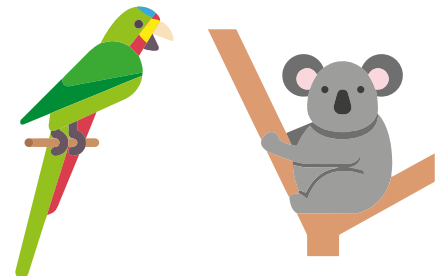
Plants

Plants are like the superheroes of nature! They grow on land and in the water. They give food to other living things and homes for animals. Plants make their own food using sunlight, water, nutrients and carbon dioxide (what we exhale with every breath). They give back the air we breathe – oxygen!



Animals

Animals come in all shapes and sizes! Some animals eat other animals, some help clean up nature's messes and others help plants reproduce by spreading pollen and seeds.



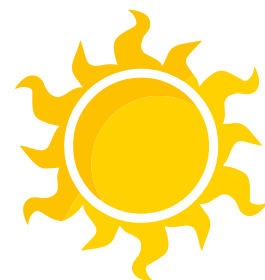
Air

We all need air to breathe! Plants recycle the carbon dioxide in the air through a process called photosynthesis, making oxygen for us to breathe.



Light

Light comes from the sun. It helps us see things and keeps our planet warm. Plants use sunlight to make food, which helps all living things stay alive.





It's all connected

Read the fact sheet about habitat and answer these questions.

1. Do living things depend on one another and their environment?

Yes No

Why?

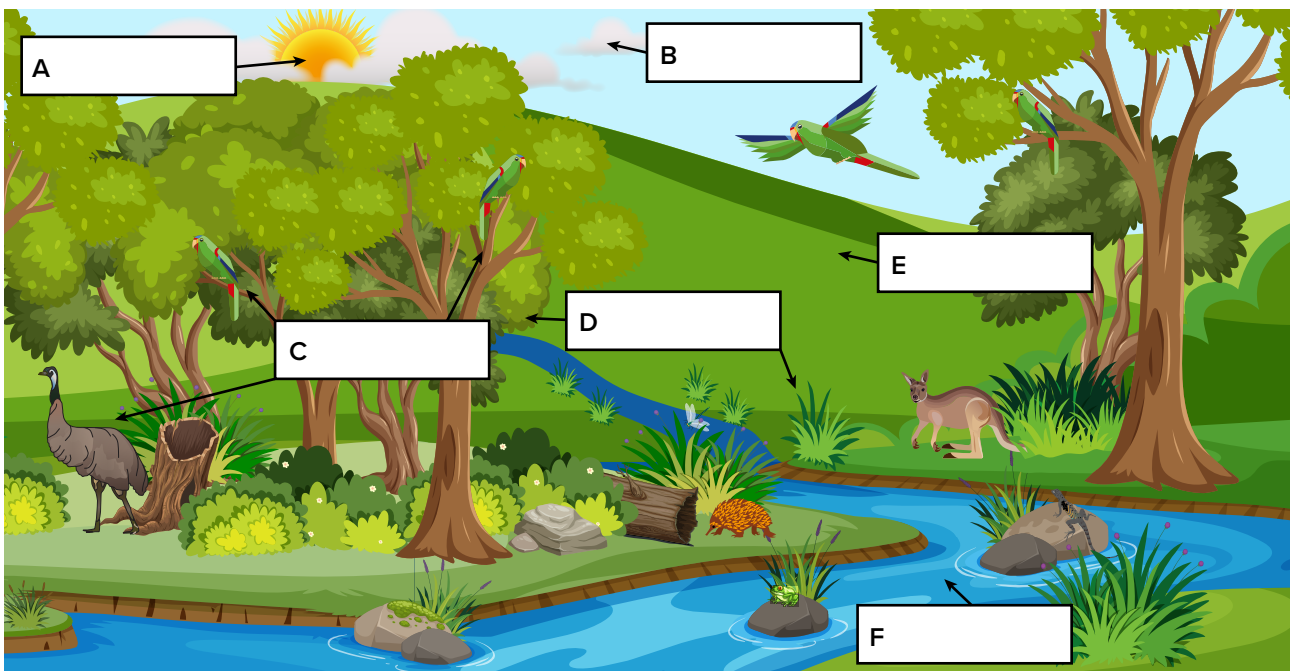
2. In your own words, describe what you think is meant by the term habitat.

.....

3. What are the six key parts that make up habitats in any environment?

1 2
 3 4
 5 6

4. Can you identify these six key parts in the following picture of a woodland habitat? Label the image.





Having a sweet tooth beak

Sweet foods

Whether it be in Tassie over summer, or the Aussie mainland over winter, the swift parrot has a taste for sweet things. They are described as being nectivorous, meaning their main food is the nectar of different woodland eucalypts. As well as nectar one of their main foods are lerps from the eucalypt leaves.

What is nectar?

Nectar is like nature's sweet treat, a special drink made by flowers. It's like a secret recipe that flowers use to attract special guests, like bees and birds, to visit them. This sweet liquid is filled with sugary goodness and gives them the energy they need to fly from flower to flower.

What are lerps?

Lerps are another sweet treat that swift parrots feast upon. They are protective coverings created by the nymph stage of tiny insects called psyllids. Lerps are found on the leaves of eucalyptus trees and are essentially shelters or enclosures that the psyllid nymphs construct to protect themselves.

Lerps are typically small, scale-like structures made from sugars, waxy secretions and other excreted substances that animals like the swift parrot like to eat.

Energy boosters

These foods are high in sugar, so they are high in the energy the swift parrots need to survive and travel long distances during their migration. Swift parrots have an in-built ability to understand environmental conditions and use things like the weather patterns and other indicators to know where eucalypts will be flowering. This guides them on the best places to breed each year and the best places to find food when they travel to the mainland.



Photos: Tasmanian blue gum flowers; ant with lerps (Shutterstock)



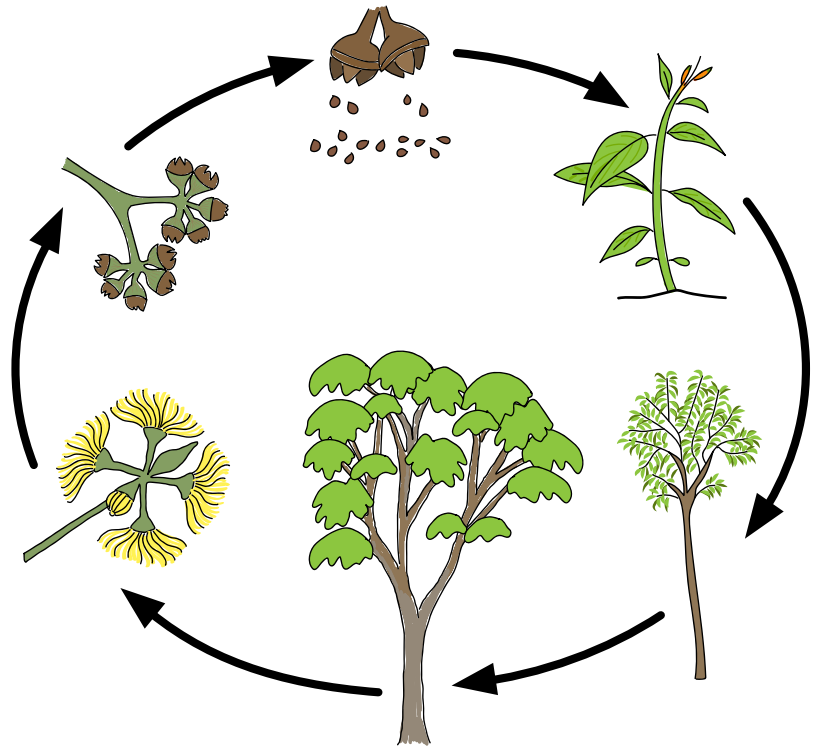
Forest pollinators

A role to play

Birds, bats and bees are really important to Australia's eucalypt woodlands. These creatures, including the swift parrot, are instrumental in the life cycle of eucalyptus trees.

Powdery pollen

Pollen, a fine dust, comes from the male parts of flowers called stamens. It's a critical part of plant reproduction. When flowers bloom, they produce this powdery substance. But to make new plants, this pollen needs to reach other flowers.



From flower to flower

Enter the swift parrot, a colourful gem among the woodlands. As it moves from flower to flower, sipping nectar, pollen sticks to its feathers and beak. When the parrot visits another eucalyptus tree, some of this pollen helps fertilise the flower, making seeds for new trees.

Unsung heroes

Pollinators are the unsung heroes of our woodlands and forests. They help move the pollen between flowers, so eucalypt trees can reproduce and thrive. This highlights the important relationships between plants and their pollinators.



Some of our pollinators

Just think... without pollinators like the swift parrot, we would have no native eucalypt trees!



Flowers and their secrets

*We're going on a flower adventure!
Get ready to uncover the secrets hidden inside flowers.*

What you'll need

- A magnifying glass (borrow one from home or ask your teacher)
- Paper and pencils for drawing
- Four different flowers (look for some in your school grounds or backyard)

Steps

1. Find four flowers

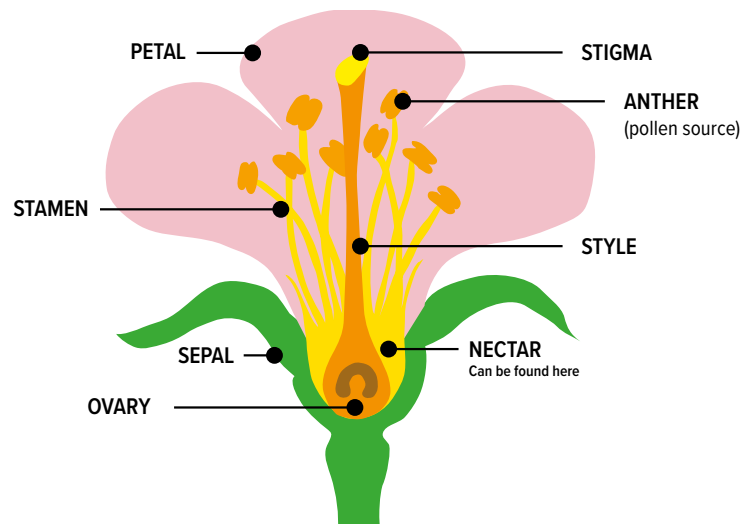
Your first step is to collect four types of flowers. Try to pick ones that look different from each other and maybe a mix between natives and garden flowers. Your teacher may ask you to do this in the school grounds or in your own backyard that evening.

2. Inspect and investigate

Bring your flowers back to class and put on your detective hats! Use your magnifying glass to closely examine each flower. Check out the colours, shapes and tiny details.

3. Draw and label

Take out your paper and pencils. Draw each flower you collected in the boxes provided. Then use your detective skills to label the parts you see: Petal, Sepal, Stamen (the male parts), Stigma and Ovary (the female parts). See if you can spot where the nectar might be hiding.



4. Share your discoveries

Share your drawings and findings with your friends. What did you find in common between the flowers? What was different? Were there any discoveries that surprised you?



My flowers

FLOWER 1 • NAME:

FLOWER 2 • NAME:

FLOWER 3 • NAME:

FLOWER 4 • NAME:

Flowers and swift parrots

Use these words to complete the sentences below.

- energy
- eucalypt flowers
- food
- migration
- nectar
- pollen
- pollinators
- woodlands

Swift parrots largely rely on the _____ from _____ _____ as a _____ source. This sweet treat provides them with the _____ they need for their long flights during their _____.

An added bonus is that swift parrots are great _____ of our native _____ as they spread _____ from flower to flower.

3. Migration patterns



Teacher's notes

The bird likes to move!

- Introduce students to concept of migration in birds and show students where swift parrots go on their annual migration using the map provided.
- **Activity:** Play the migration relay.

Summertime in Tasmania

- Go through the story of how swift parrots spend their summers in Tasmania.

Winter on the mainland

- Go through the story of how swift parrots migrate and search for food on the Australian mainland during winter.

Life cycle of a swift

- **Activity:** Using the previous fact sheets, students complete the life cycle diagram of the swift parrot. Students can create their own swift parrot life cycle poster using the colouring-in sheet.

Answers: A. Lay eggs. B. Raise chicks. C: Migrate north. D. Feed and grow. E. Follow flowering trees. F. Migrate south. G. Find a hollow. H: Summer. I: Winter.

What you need

- Copies of the activity sheets
- SmartBoard for playing videos
- Copies of the wristband template
- Cones or markers
- 20 tennis balls
- 4 buckets
- 4 cups and dice
- 1 table
- 4 basketballs or other small ball



The bird likes to move!

What is a migratory bird?

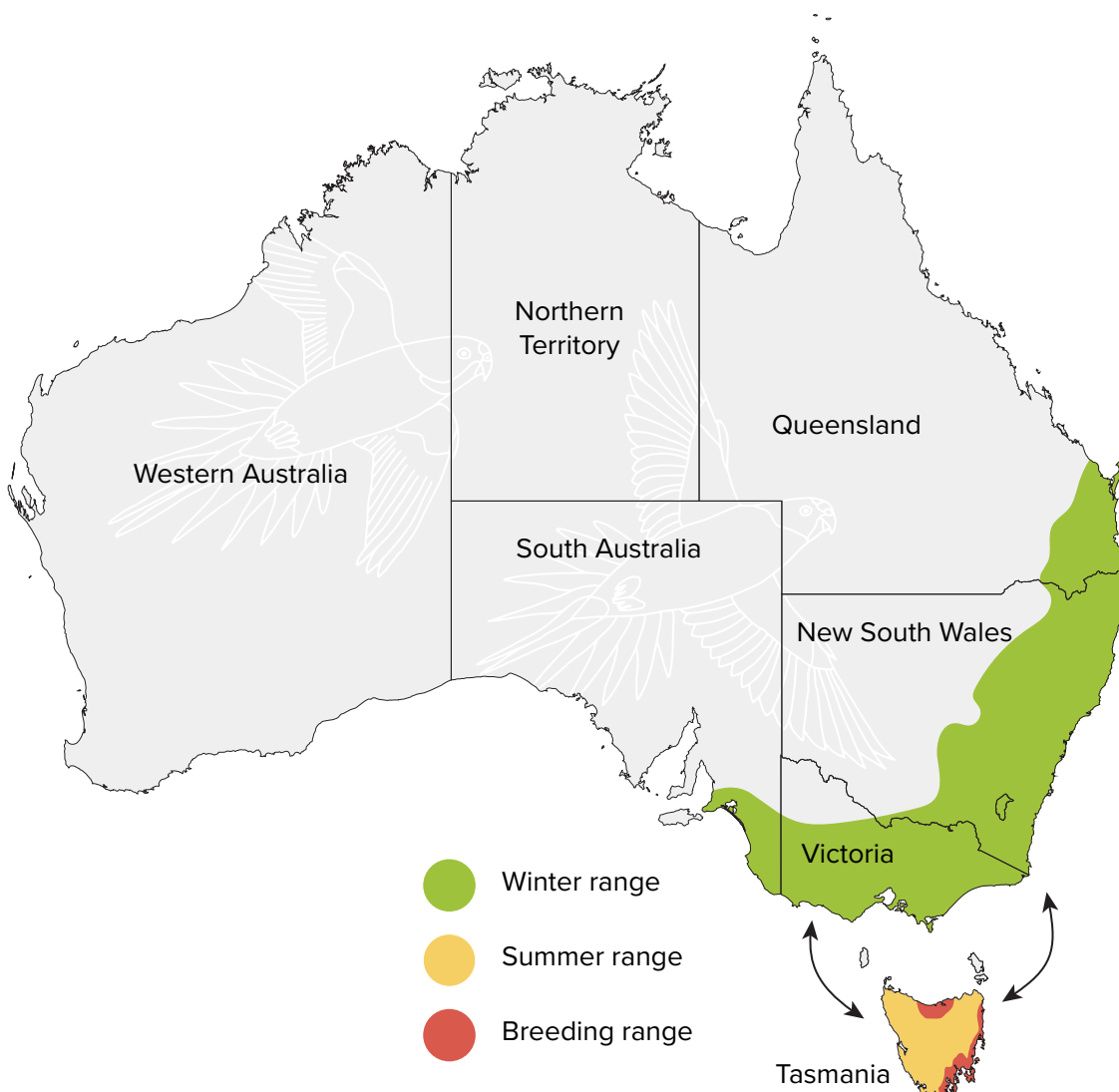
A migratory bird is a special kind of bird that travels long distances from one place to another at different times of the year. They can move a lot, covering vast distances, across continents! They do this for many reasons, such as mating, nesting or finding better food.

The routes migratory birds take are often incredibly accurate. They are guided by instincts and environmental cues, like the changes of seasons, weather and food availability.

Where do swifty's go?

The swift parrot is one of only three migratory parrots. Every year, they travel long distances across eastern Australia. They have two important places they stay, kind of like having two homes.

During summer, they live in Tasmania, making homes in Tasmanian blue gums (*Eucalyptus globulus*) and black gums (*Eucalyptus ovata*). When autumn arrives, they fly over Bass Strait to the Australian mainland for winter. They can travel up to 2,500 kilometres, spreading out across woodlands from South Australia, through Victoria and eastern NSW and up to south-eastern Queensland.





Migration relay

Instructions

After introducing your class to the term migration, and how the swift parrot moves throughout south eastern Australia, take your class outside (or in a hall) to help your students understand the level of activity required by swift parrots on their annual migration.

Before the game

Divide the class into teams, ensuring an equal number of players in each team. Assign each team a colour. Provide each team member with a wristband (template is on the following page) and allow them to decorate it to match their team colour.

This relay will require you to set up some stations prior to the game.

Materials

- Wristband template
- Cones or markers
- 5 tennis balls for each team
- 1 bucket per team
- 1 cup and dice per team
- Table
- 1 basketball or other small ball per team

Migration route setup and station instructions

Set up a migration route using cones or markers in a big loop from the starting line. Along the route are 5 stations that represent different legs of the journey from Tasmania to the mainland and back.

START LINE: Tasmania breeding site

Student instruction: Each team member must follow the migration route of the swift parrot, complete the challenges at each station before returning and tagging the next team member.

STATION 1: Tasmania — feeding the chicks

Setup: Four groups of tennis balls (5 in each group) spaced evenly on the ground. An empty bucket is placed 2 metres away.

Student instruction: You need to feed your chicks to make them strong. Throw 5 tennis balls into a bucket. If you miss, keep going until all the tennis balls are in the bucket.

STATION 2: Crossing Bass Strait

Student instruction: Flying across Bass Strait is hard work. Do 10 star jumps.

STATION 3: Feasting in Victoria

Setup: Using a table or paved area, provide each team with a dice and cup.

Student instruction: Finding a good source of food requires skill and luck. Roll your dice until you get a 6 and then move on.

STATION 4: Follow the flowers

Setup: Place a series of cones leading out from Station 4 leaving enough space for students to pass each other dribbling a ball.

Student instruction: Follow the flowers and find enough food. Weave through the cones while dribbling a small ball.

STATION 5: Crossing Bass Strait again

Student instruction: Flying across Bass Strait is hard work. Do 10 star jumps.

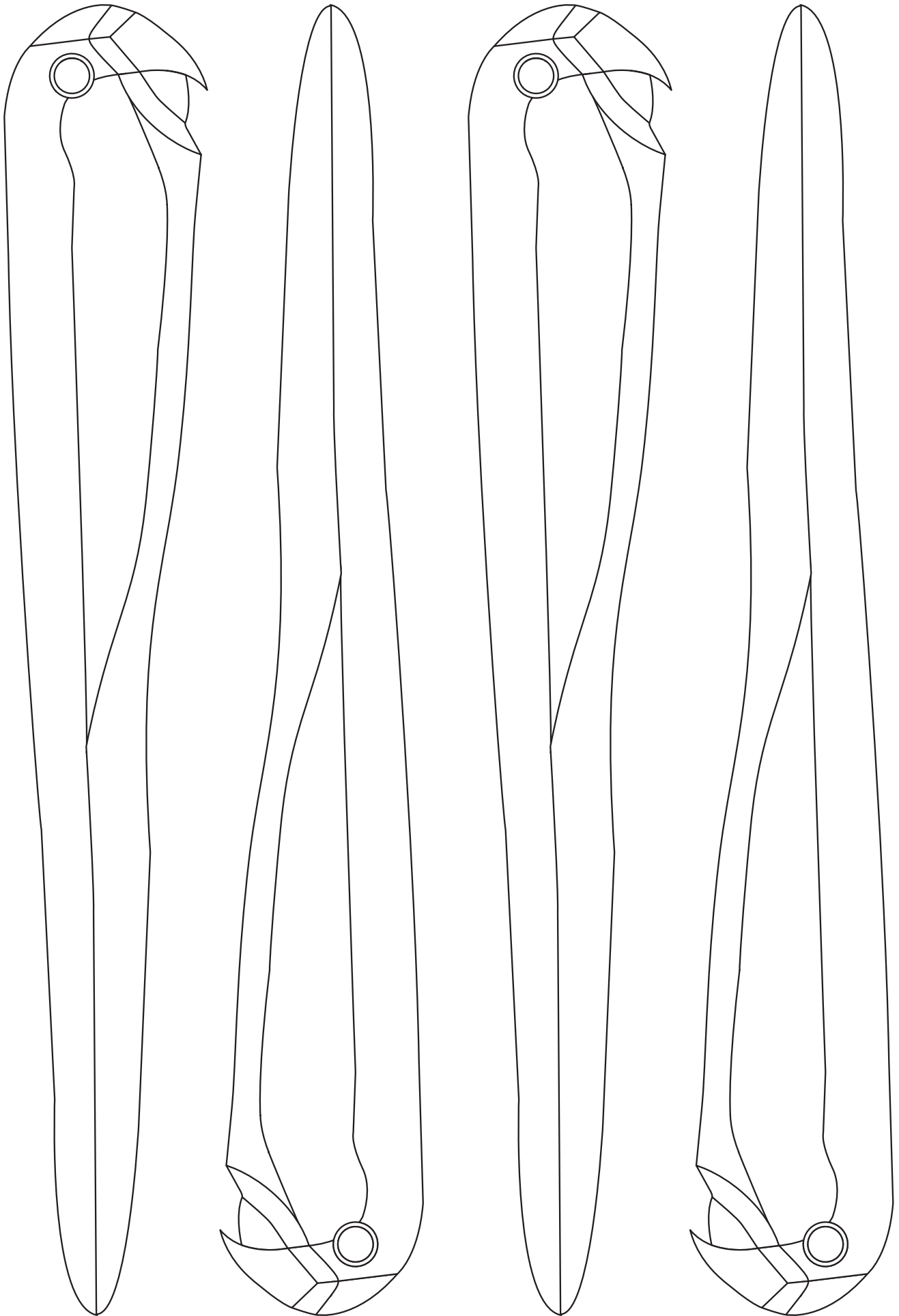
FINISH LINE: Tasmania breeding site

Student instruction: Before tagging the next team member, the whole team must greet each other with their best swift parrot flapping display.

PLAYING THE GAME — INSTRUCTIONS FOR STUDENTS



WRISTBAND TEMPLATE — PROVIDE ONE PER STUDENT TO DECORATE





Summertime in Tasmania

And... they're off!

Swift parrots are remarkable birds that fly all the way from mainland Australia to spend their summers in Tasmania. They start their journey from the mainland around August and most will arrive in Tasmania by October.

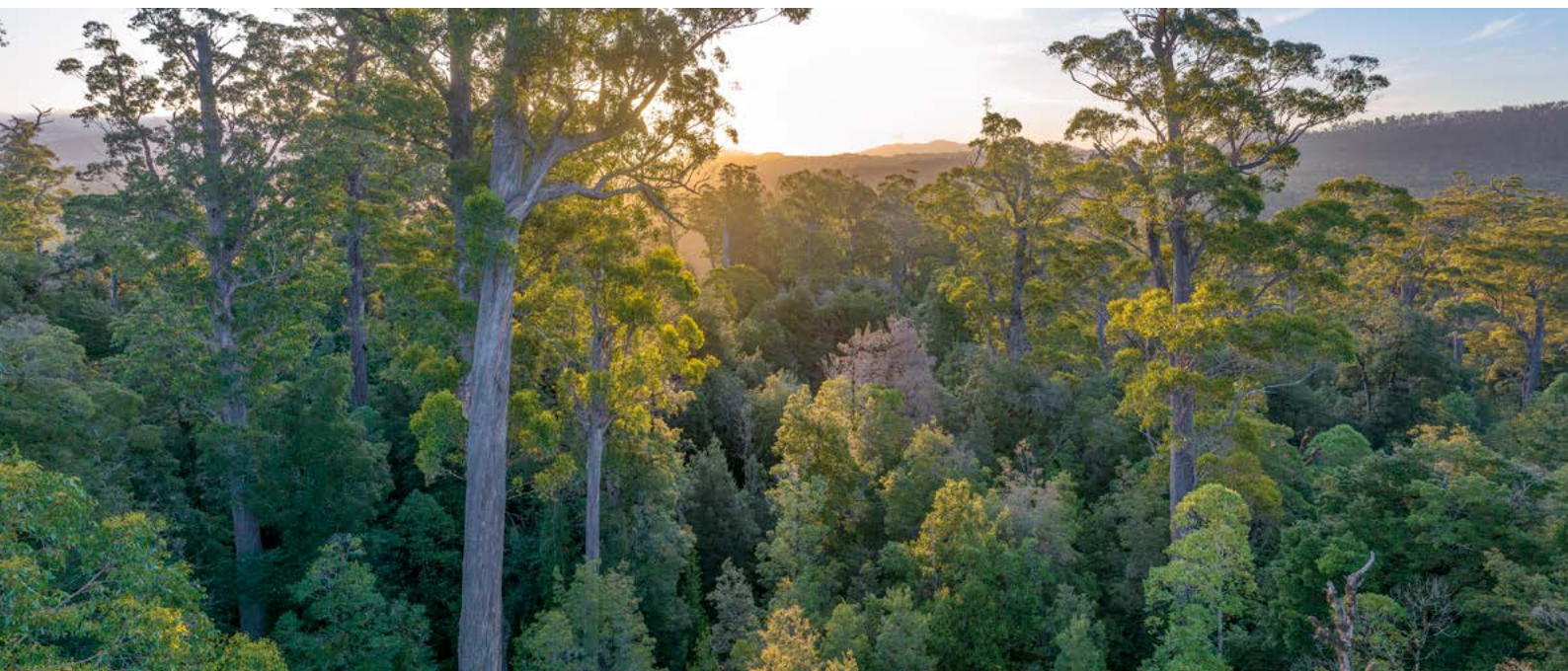
Where the magic begins

The flowering season of the Tasmanian blue gum (*Eucalyptus globulus*) provides swift parrots the food they need during their summer breeding time. These nectar rich flowers provide lots of energy, perfect for raising their chicks.

Finding the perfect home

Swift parrots need a reliable food source and big trees with hollows to make their nests. They prefer these trees in the natural woodlands of the south and east coast of Tasmania.

Tarkine (Tarkayna) forest in northwest Tasmania (Rob Blakers)



What are tree hollows?

Tree hollows are cosy spaces inside old trees. Sometimes, animals like birds or possums make their homes in these hollows because they're safe and comfy. They're like natural apartments for animals, keeping them safe from the weather and other animals.

Creating homes for wildlife

Tree hollows take a long time to form; and many are being lost due to people clearing land and removing old trees. So there are no longer enough hollows for the animals that need them. One solution is for people to build and install a range of artificial hollows in trees to give animals a safe place to live until new hollows can form.

Nesting habits

Although swift parrots prefer Tasmanian blue gums, they also nest in the hollows of other big trees like black gums (*Eucalyptus aggregata*), if they have hollows and plenty of food nearby.



Family life

Swift parrots are friendly birds and sometimes make nests close to each other or even in the same tree. The number of chicks born each year depends on how many good trees have flowers. These birds are really clever! They remember where the good trees are and come back when they flower again, which might not be every year.

Nesting and chicks

In Tasmania, male and female parrots start looking for good places to build their nests around September–October. Females lay four to five, shiny white eggs shaped like ovals with round ends.

The female stays in the nest taking care of the eggs until they hatch, while the male brings her food every few hours. After about 25 days, tiny chicks break out of the eggs. The parents keep feeding and protecting them in the hollow until they can fly.

Right: A clutch of swift parrot nestlings in the bottom of a nest box (Dejan Stojanovic and Threatened Species Recovery Hub)

Below: Parent swift parrots with chicks in a hollow (Rob Blakers)

Growing up

Once the chicks can fly, swift parrots spread out across the Tasmanian woodlands, collecting nectar to grow stronger. They must build up their strength and energy for the journey north to the Australian mainland for winter.





Winter on the mainland

Leaving Tasmania

From mid-February to the end of April, swift parrots leave Tasmania and fly to the mainland. They leave from the north coast of Tasmania and fly across Bass Strait to places like the Mornington and Bellarine Peninsulas and Port Phillip Bay in Victoria.

Where do they explore?

On the mainland, swift parrots search for different trees with tasty food. They move around to find the best spots to roost and eat, depending on the weather and where they find enough food.

Favourite hangouts

They love big, mature trees in eucalypt woodlands throughout Victoria and New South Wales. These areas have the food they prefer and they provide more reliable sources of food. They can spread out in a range that stretches from the far east of South Australia to south-eastern Queensland. This can be a journey of up to 2,500 km from their nesting grounds in Tasmania.

They change where they stay during the year, depending on where there's enough food. They may stay briefly in some places or sometimes longer, depending on where the best food is. Swift parrots need different places to live and eat at different times of the year to have enough food.

Food adventure

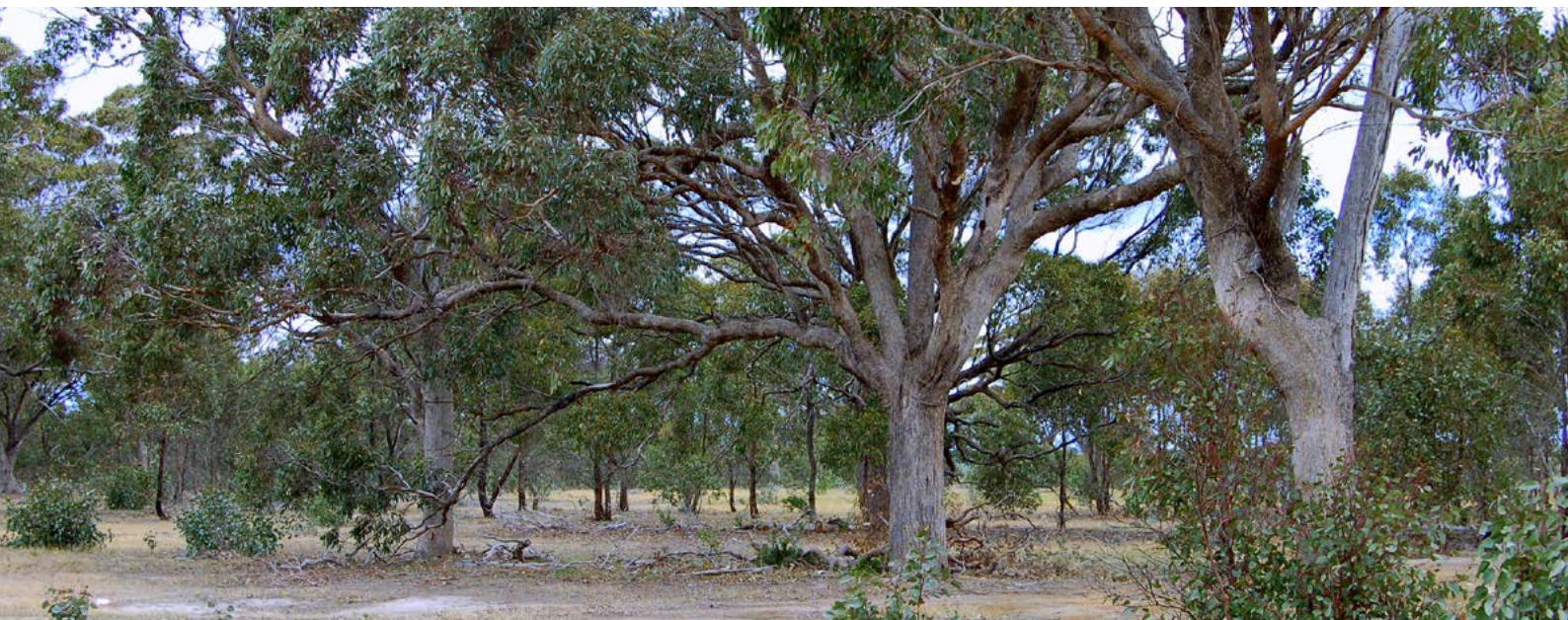
They start by visiting trees like grey box (*Eucalyptus microcarpa*) that bloom early in autumn/winter, then move to trees like ironbark (*Eucalyptus microcarpa*) and yellow box (*Eucalyptus melliodora*) that are flowering by the end of winter.

Rain affects when these trees bloom; if there isn't enough rain, food might be scarce, especially in some inland areas. During times when there is not enough rain, swift parrots can be more concentrated in coastal regions.

Adapting for survival

When food is hard to find, they might use planted eucalypt trees, but it's not as good for them. Being in these places a lot can make them tired and less healthy.

Grey box woodland (Elizabeth Donoghue, CC BY-NC-ND)





Roosting habitat

Finding big trees near their food is important for where they sleep, called roost sites. Sometimes they sleep alone, sometimes in groups. We're still learning about why they sleep together, but we think it might be important for them to talk and socialise.

Heading home

After feeding as much as possible on the Australian mainland in autumn and winter, from August on, the swift parrots begin their journey back to their breeding grounds in Tasmania's blue gum woodlands.

Right: Swift parrot feeding on lerps (David Cooke, CC BY-NC)

Below: Swift parrots flocking together (G. Dabb)





Life cycle of a swift

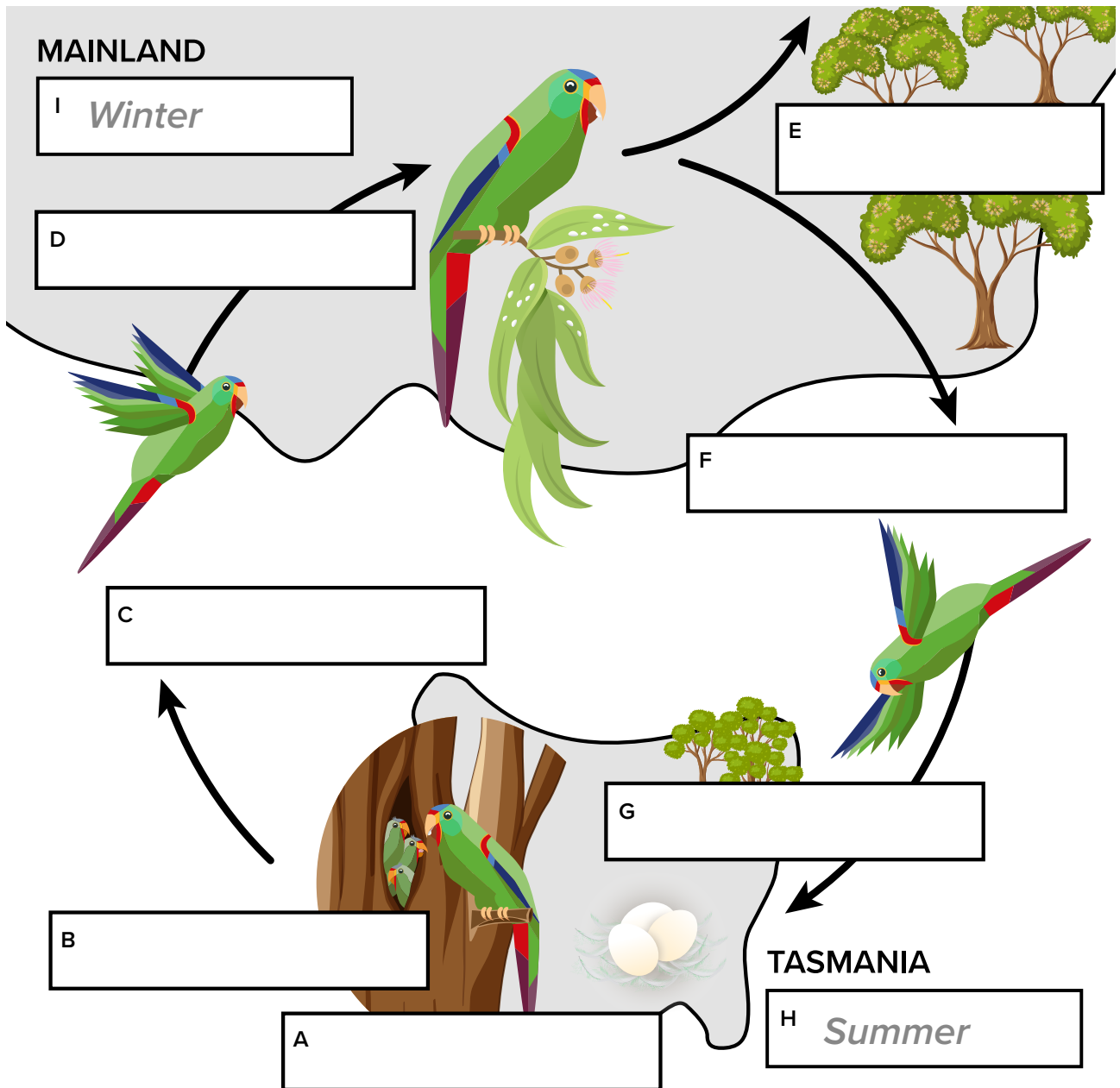
A life cycle is a story that shows how a living thing grows, changes and then starts all over again. It's like a big continuous adventure that every living thing goes through, showing how it grows and changes over time.

The diagram below shows the life cycle of the swift parrot. Use the list of labels for the different stages of their life cycle to help you fill in the spaces on the diagram.

Feed and grow
Follow flowering trees
Lay eggs

Migrate north
Migrate south
Find a hollow

Raise chicks
Summer
Winter





Colour my life



4. Under threat



Teacher's notes

What does it mean to be threatened?

- Use the fact sheet to help students understand the threatened species classification system.
- **Activity:** Use the fact sheet to answer the questions.
Answers: 2: A–Conservation dependant; B–Vulnerable; C–Endangered; D–Critically endangered; E–Extinct. 3: A: Vulnerable; B–Critically endangered C– Extinct; D– Conservation dependant; E–Endangered. 4: The swift parrot is facing an extremely high risk of becoming extinct in the near future. Its population is critically low and urgent conservation efforts are needed.

Threats to swift parrots

- Go through the fact sheet to help students become aware of all the different threats to swift parrots.
- **Activity:** Use the fact sheet to answer the crossword clues.
Answers: 1: Competition. 2: Fires. 3: Habitat. 4: Capture. 5: Threat. 6: Population. 7: Critically. 8: Swift Parrot. 9: Bees. 10: Disease. 11: Climate. 12: Prey.

What you need

- Copies of the activity sheets

Optional activity

Assign a threat for each student to investigate and have them present back to the class.



What does it mean to be threatened?

The swift parrot is a threatened species and is listed as **CRITICALLY ENDANGERED** across Australia.

So, what does this actually mean?

When we talk about an animal or plant as being classified as a threatened species, it tells us that **the species is at risk of disappearing.**

The Australian Government administers legislation called the *Environment Protection and Biodiversity Conservation Act 1999*. This helps guide the government to assess and address the challenges these animals face. This Act identifies the plants and animals whose survival is under threat from things such as habitat loss.

The government, businesses, experts and community groups use scientific knowledge and guidelines to work together to protect these species by preserving existing populations and helping their numbers recover to a healthy level.



Conservation status

We use different levels to help us rate how threatened an animal or plant's natural population is in the wild. **The conservation status identifies the level of risk faced by a species in terms of its survival.**

There are a few species around the world that only exist in captivity, as all wild populations have disappeared.

Species that don't have a conservation status, and are not under threat of extinction, are often referred to as common or least concern.

Levels of threat

1. **CONSERVATION DEPENDANT:** A species that is not yet classified as endangered but may become so in the future if its population keeps dropping.
2. **VULNERABLE:** A species that is at a high risk of becoming endangered if conservation measures are not implemented. Its population has declined significantly.
3. **ENDANGERED:** A species that is at a very high risk of becoming extinct. Its population has declined significantly and immediate conservation action is required to prevent its extinction.
4. **CRITICALLY ENDANGERED:** A species that is facing an extremely high risk of becoming extinct in the near future. Its population is critically low and urgent conservation efforts are needed.
5. **EXTINCT:** A species that no longer exists in the wild or in captivity.



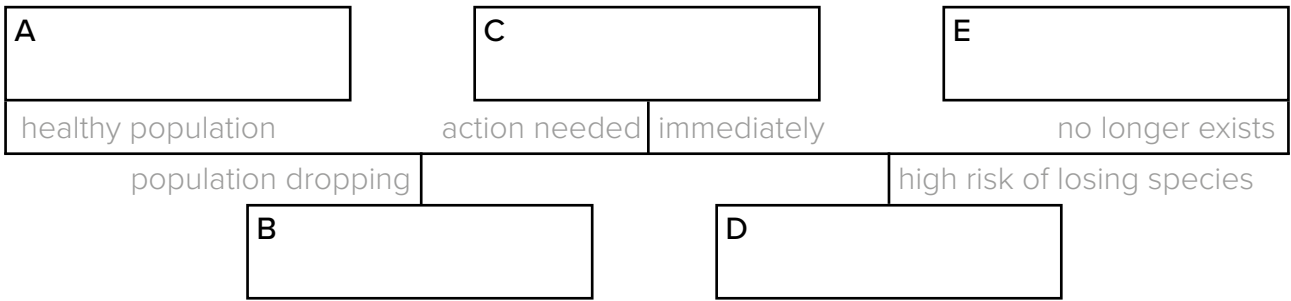
Defining threatened species

1. Use your own words to explain what a threatened species is.

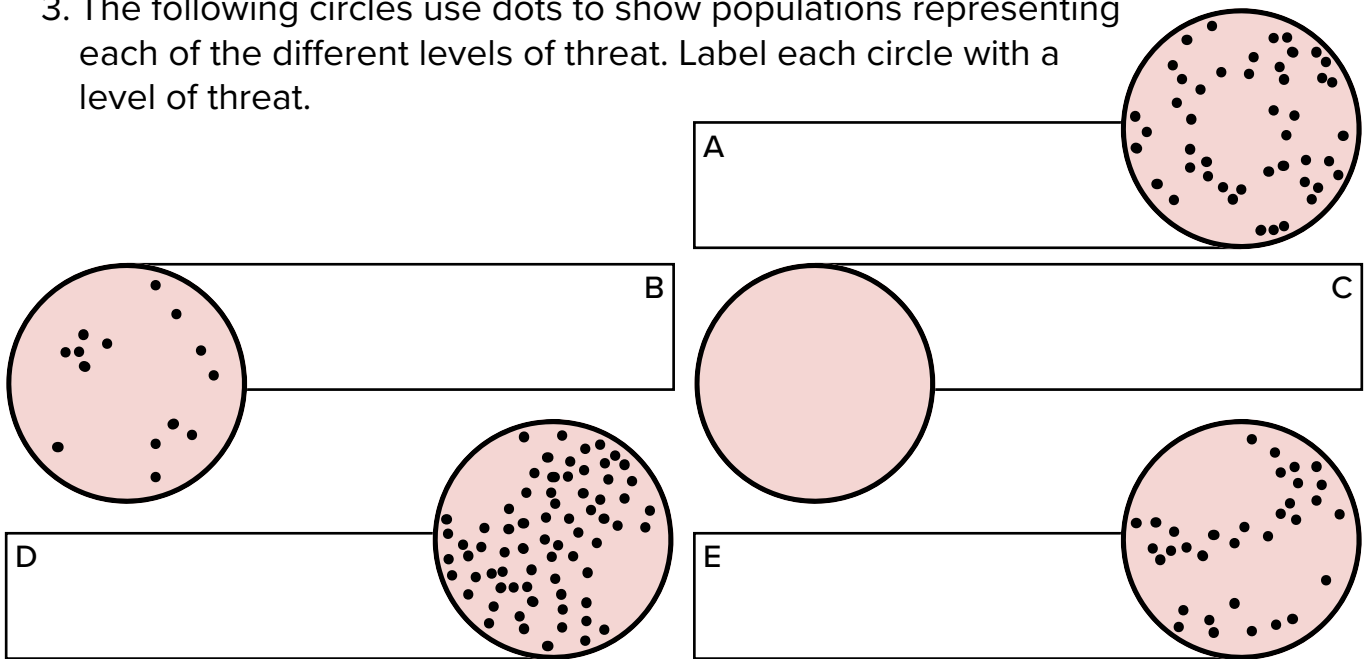
.....

.....

2. Australia uses different levels of threat to describe how threatened an animal or plant is. List the five levels of threat from lowest (healthy population) to highest (no longer exist).



3. The following circles use dots to show populations representing each of the different levels of threat. Label each circle with a level of threat.



4. The swift parrot is classed as being critically endangered. Explain what you think this means.

.....

.....



Threats to swift parrots

The swift parrot is a beautiful and unique Australian bird that is in trouble. It is thought there are as few as 500 of these birds left in the wild, which has led to swift parrots being classed as Critically Endangered.

To understand why the swift parrot population has dropped so low we must learn about the things that are threatening them. Unfortunately, there are lots of things that are threats to swift parrots, with most of them being caused by people.



Habitat loss — native timber forestry, urban development, agricultural clearing and dieback are all factors reducing habitat for swift parrots. Old, mature trees are dying off and not being replaced.

Drought conditions — longer and more frequent droughts cause many habitat trees to die off or flower at different times in response to changes in weather patterns.

Collisions with human made structures — wire or nylon netting, mesh fences, windows and cars may cause mortality to swift parrots in urban areas.

Loss of habitat from climate change — as temperatures rise due to climate change the distribution and make-up of habitats are changing and can affect feeding and breeding habitat.

Competition — introduced bees and aggressive honeyeaters compete for food; other animals, such as sugar gliders in Tasmania, will compete for nesting hollows as well.

Predation — feral or domestic cats that are free to roam around are known to regularly prey on birds and other native wildlife. Sugar gliders will prey on swift parrots in the nest.

Disease — Psittacine Beak and Feather Disease (Pbfd) is a common and potentially deadly disease of parrots spread by food sharing through the bird's crop, or from occupying hollows used by infected birds.

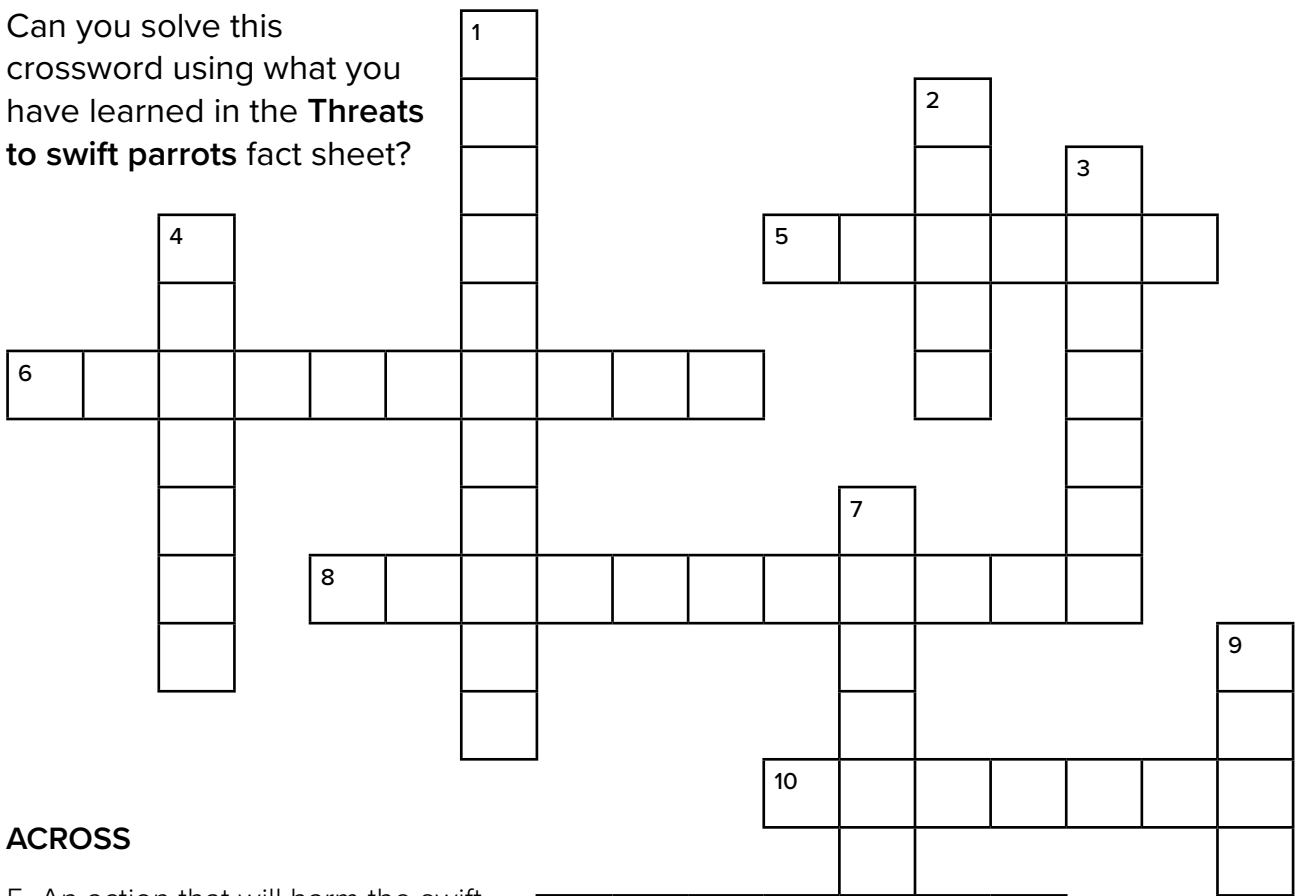
High fire frequency — too many fires too quickly reduces the chance for mature trees to flower; hazard reduction burns around urban areas are causing habitat loss.

Illegal capture and trade — unregulated trade in wildlife has become a major factor in the decline of many species of animals and plants.



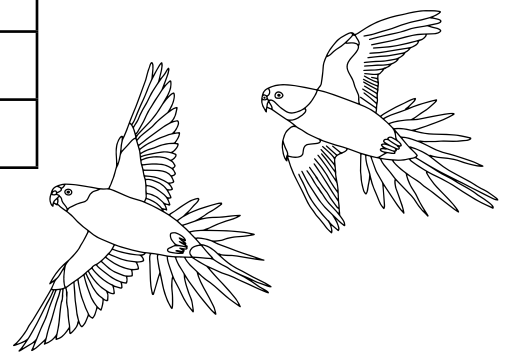
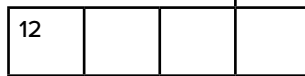
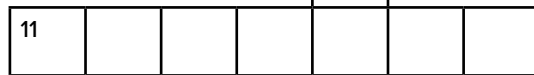
Know the threats crossword

Can you solve this crossword using what you have learned in the **Threats to swift parrots** fact sheet?



ACROSS

- 5. An action that will harm the swift parrot is called a ...
- 6. A term used to sum up the number of individuals in a group.
- 8. This is a critically endangered bird.
- 10. PBF D is a type of deadly ...
- 11. This is changing and temperatures are rising.
- 12. Cats will ... on birds and other native wildlife.



DOWN

- 1. Bees and honeyeaters are in ... with swift parrots for food.
- 2. Too many of these too quickly is not good for swift parrot habitat.
- 3. The loss of this is the biggest threat to swift parrots.
- 4. It is illegal to do this and trade native Australian wildlife.
- 7. The swift parrot is listed as ... Endangered.
- 9. Introduced species of these insects are making it hard for swift parrots to find enough food.

5. Conservation efforts



Teacher's notes

Helping swift parrots

- This fact sheet looks at all the actions that everyone can do to look after swift parrots and their habitat.

A plan for conservation

- Help students understand that governments and scientists use plans for conservation action. Show students the video on the landholders case study. Discuss what students found interesting.

Tracking with drones

- This fact sheet introduces students to the use of technology in tracking where swift parrots are feeding. Watch the videos about how drones are used for swift parrot conservation.

Tell the world!

- **Activity:** Students create some materials to raise awareness in the school community about swift parrots. Encourage them to be as creative as possible and use whatever medium they think will work best to get the messages across!

What you need

- Copies of the activity sheets
- SmartBoard for playing videos
- Materials suitable for raising awareness activity, such as craft supplies, tablets/computers, etc.



Helping swift parrots

Your local Landcare group, Council or Local Land Services, can help you with these activities.



Plant and protect trees

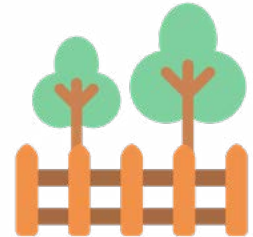
Retain old trees with hollows.

Plant food trees in key habitat areas to replace old and dying trees.

Land management

Protect native vegetation from livestock.

Control weeds to improve bushland areas.



Avoid obstacles

Close curtains and blinds to avoid parrots banging into windows.

Drive carefully to avoid collisions with birds.

Responsible pet ownership

Keep cats inside to prevent them preying on native birds.



Make mesh fences more visible in migration areas.



Control pests

Work together with your community to control feral foxes and cats.



Help control sugar gliders in Tasmania where they do not belong.

Participate in programs

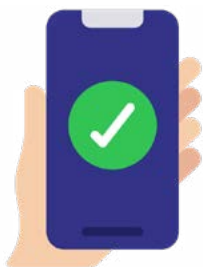
Join Birdlife Australia surveys to locate the winter foraging flocks.

Get involved in Landcare projects that are helping the swift parrot.



Report sightings

Report sightings of swift parrots to BirdLife Australia to contribute valuable information on their current status and range.



Go birdwatching

Join a local bird watching group.

Take friends and family bird watching and teach others about the importance of looking after wildlife.





A plan for conservation

Just like how we make plans to stay healthy and happy, the swift parrots have something called a **Conservation Plan** or a **Recovery Plan**. It's a special guide created by experts in government and science, as well as other members of the community, to keep our threatened parrots safe and sound.

A conservation plan help us to:

UNDERSTAND the reasons why swift parrots have become threatened.

TAKE ACTION to ensure the safety of swift parrots and their habitat.

DEVELOP STRATEGIES to increase their population to healthy levels in the future.

DEVELOP METHODS to monitor their population.

RAISE AWARENESS about the challenges faced by the swift parrot and the importance of conservation.

Case study

See how some landholders have turned one of their creeks into an ecological haven for the swift parrot and other wildlife.



Scan or click to watch the video

Below: Male (front) and female (rear) swift parrots (Rob Blakers)





Tracking with drones

Helping our threatened species is not an easy task, especially when we are looking at a migratory species like the swift parrot. Not only do we face the challenges that their numbers have become so low they are considered critically endangered, but they rely on habitats spread out from Tasmania to Queensland. This can make them really hard to find!

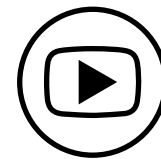
To address this challenge, Wildlife Drones, an Australian technology company, has developed specialised drones that are equipped with cameras and other sensors. These drones help scientists monitor and track swift parrots in their natural habitat.

The data collected through these drones enables researchers to analyse the movements, behaviour and habitat use of swift parrots. This information helps us understand their population dynamics and conservation needs.

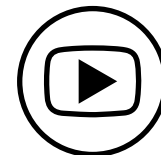
This Australian success story is now helping threatened species around the world.



Scan or click QR code to find out more about Wildlife Drones



Scan or click QR code to watch an interview with ecologist and swift parrot expert Debbie Saunders



Scan or click QR code to watch a video about tracking with drones

Below: Taking a drone for a flight (Wildlife Drones)





Tell the world

A big part of any conservation effort to help a threatened species is telling people about the problem and how they can help.

Your task

Use the knowledge you have learned to help the cause of the critically endangered swift parrot by creating some materials to raise awareness in the school community.

Be as creative as possible and use whatever medium you think best to get your messages across!

The swift parrot travels around 5000 km a year!

Wow! That's amazing!

Yeah, and they are only 25 cm long!



Possible ideas: create a poster, video or digital presentation, write a song or poem, write a swift parrot storybook, or any other way you think is suitable to get peoples' attention.

Make sure you check your idea with your teacher.

Here's some thoughts about what our swift parrot friend might like you to tell the world about...

Where do they live?	What do they look like?	Where do they spend summer?
What threatens them?	How do you identify them?	Are they a threatened species?
What are they?	What do they eat?	What is the level of their conservation status?
Where do they spend winter?	How is technology used to help them?	What does being a migratory species mean?
How can we help?		
What is special about them?		

Glossary

Behavioural characteristics: The ways animals act or behave.

Blue gum (*Eucalyptus globulus*): A type of eucalyptus tree with blue-green leaves.

Bushland: Natural areas with lots of trees, plants, and wildlife.

Climate change: Changes in the Earth's weather and temperature over a long period.

Communities: Groups of plants, animals, and people living together.

Competition: When living things try to get the same resources, like food or space.

Conservation: Protecting and taking care of the environment and wildlife.

Conservation status: How endangered or safe a species is.

Critically endangered: A species at very high risk of becoming extinct.

Disease: Sickness or illness that can affect living things.

Drone: An unmanned flying vehicle, often used for research.

Drought: A long period without rain, causing water shortages.

Environment: Everything around us, including living and non-living things.

Eucalypt: A type of tree with aromatic leaves.

Government: The people and rules that manage a country or area.

Habitat: The place where a plant or animal naturally lives.

Habitat loss: When a natural home for plants and animals is destroyed.

Hollows: Empty spaces in trees where animals can live. For more detail, get a copy of *A Hollow is a Home* book and teacher Notes at publish.csiro.au/book/7729

Illegal wildlife trade: Buying or selling animals, plants or their parts illegally.

Land management: Taking care of the way land is used.

Lerps: Protective covers made by tiny insects on leaves.

Life cycle: The stages a living thing goes through, from birth to death.

Mating: When animals come together to reproduce.

Mature trees: Fully grown and developed trees.

Migratory bird: A bird that travels long distances during different seasons. Migration is a remarkable journey these birds undertake for various reasons, such as finding suitable weather, food or places for nesting.

Monitor: Keep track of and observe closely.

Nectar: Sweet liquid produced by flowers, often eaten by animals.

Nectivorous: Animals that eat nectar from flowers.

Nesting: Building or preparing a home for eggs and babies.

Ornithologist: Someone who studies birds.

Parrot: Colourful birds known for their ability to mimic sounds.

Physical characteristics: Features and traits of how something looks.

Plumage: Feathers on a bird.

Pollen: Fine powder produced by flowers for reproduction.

Pollinators: Animals that help plants make viable seeds by moving pollen between flowers.

Population: The number of individuals of a species in a specific area.

Predation: When one animal hunts and eats another.

Raise awareness: Inform and educate people about a particular issue.

Recovery plan: A strategy to help a species or environment bounce back.

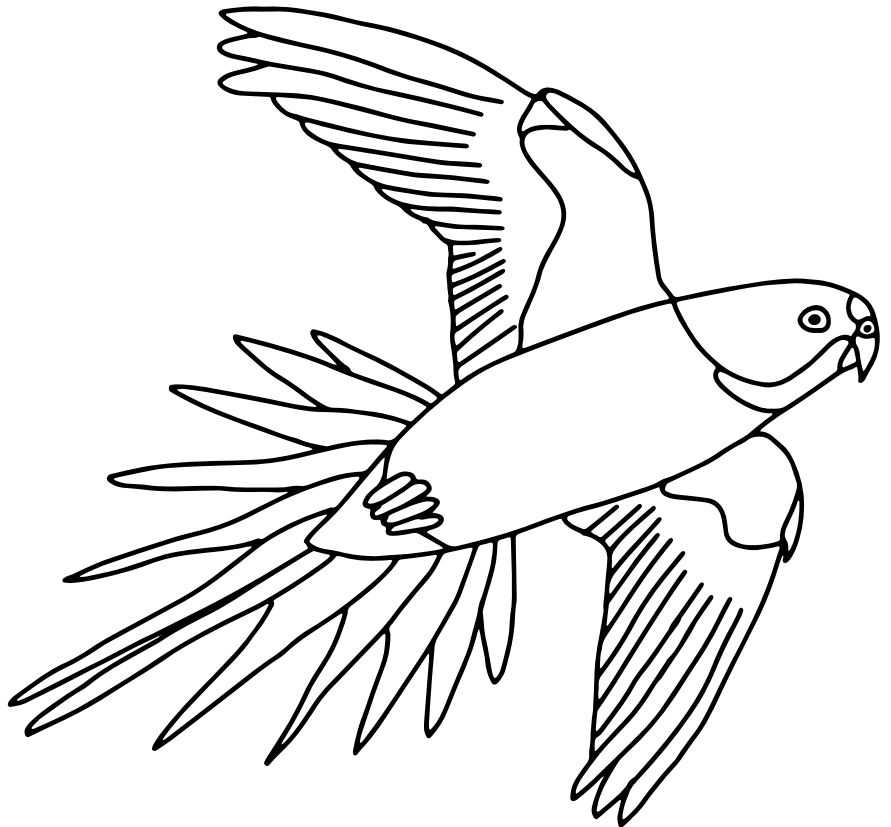
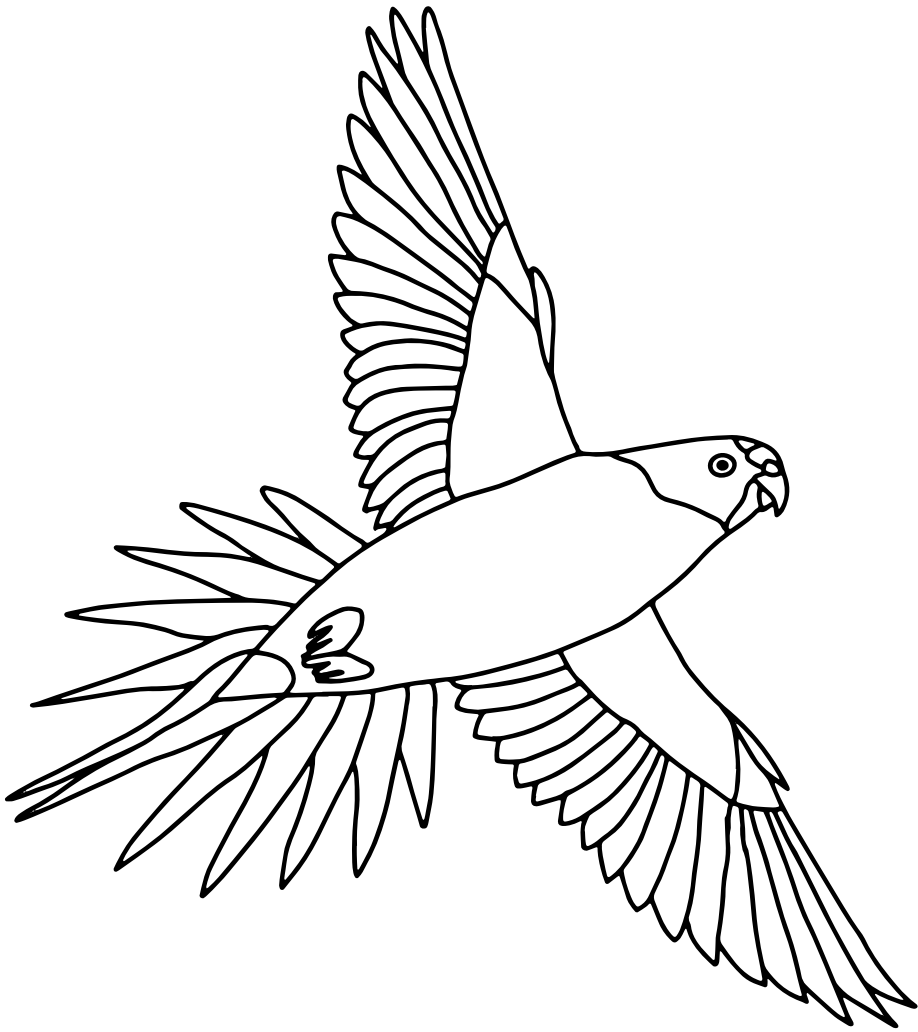
Survival: The act of staying alive and thriving.

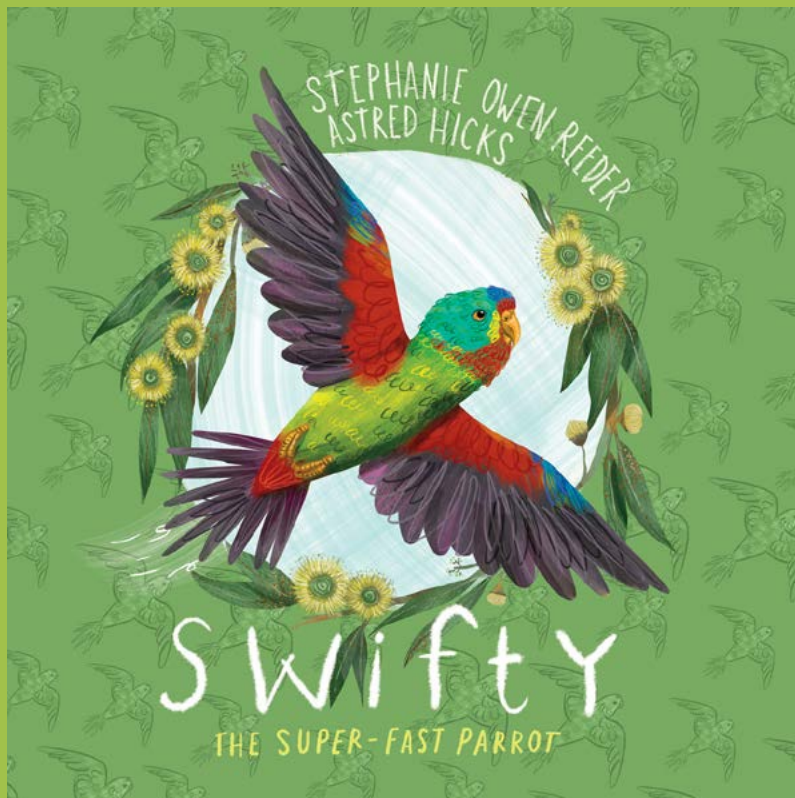
Threatened: At risk of becoming endangered or extinct.

Tracking: Following and studying the movements of animals.

Woodlands: Areas with many trees, but not as dense as a forest.

Zygodactyl feet: Feet with two toes pointing forward and two backward, common in parrots.





Swiftly the super-fast parrot

Fly with Swiftly on the swift parrot's challenging migration journey following the blossom trail.

A captivating story of the remarkable, but critically endangered, swift parrot—the fastest parrots in the world!

Included on the website is a video trailer as well as some Teacher Notes you can download as a free PDF to support the use of this book in the classroom.

Available at
CSIRO Publishing

Scan or click
QR code to buy

