

**Lesson Plan Series** 

Upper Primary Year 4-6



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Content in these lesson plans was developed or adapted by Jen Mitchell and Bree Brown. Helena Nicholson (Dunsborough Primary School) assisted with curriculum linking, resource links and activities. Josh Whiteland provided local aboriginal information. All activities adapted from other sources are acknowledged.

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#### How to use this document

This document provides a series of lesson plans that can be used by teachers to guide their students through four core areas of learning about Western Ringtail Possums. The lesson plans series can be used in sequence, progressively developing understanding and knowledge as the lessons are delivered. Alternatively, one series of lessons could be focused on for general learning about an associated area of study or topic e.g. biodiversity or habitat.

#### **Environmental aim**

The aim of this lesson plan series is to develop an understanding and appreciation of Western Ringtail Possums as a special and unique creature that is a threatened species. This understanding will be developed through involving students in experiences and learning activities that bring them closer to Western Ringtail Possums that reside on the school grounds or in the local environment.

Each series of lesson plans contain the following information:

- Australian Curriculum links
- Learning aims and objectives
- Resources
- Student activity pages and or resource sheets

## Lesson Series One

#### Lesson series 1: Our special possum

#### Aim

Students will study the distinct features of the Western Ringtail Possum (WRP) and be able to distinguish it from other possums.

#### **Learning objectives**

Students will develop a knowledge and understanding about:

- the unique biology and physiology of the WRP
- feeding patterns of the WRP including the ability to do this at night
- when WRP breed and how they care for their young



Photo by L.Jackes, courtesy of City of Busselton

#### **Curriculum links**

AUSTRALIAN CURRICULUM		
Strand Elaborations		Year
SCIENCE		
Science Understanding Biological Science		
Living things have life cycles (ACSSUO72) Living things, including plants and animals, depend on each other and the environment to survive (ACSSUO73) Living things have structural features and adaptations that help them to survive in their environment (ACSSU043) The growth and survival of living things are affected by the physical conditions of their environment (ACSSU094)	<ol> <li>investigating how plants provide shelter for animals</li> <li>investigating the roles of living things in a habitat, for instance producers, consumers or decomposers</li> <li>observing and describing predator-prey relationships</li> <li>predicting the effects when living things in feeding relationships are removed or die out in an area</li> <li>recognising that interactions between living things may be competitive or mutually beneficial</li> </ol>	4 5 6
Science Inquiry Skills Planning and Conducting Suggest ways to plan and conduct investigations to find answers to questions (ACSIS065) Communicating Represent and communicate ideas and findings in a variety of ways such as	<ol> <li>investigating the definition of 'biodiversity', questioning, analysing and drawing conclusions</li> <li>using creative means to communicate the terms 'biodiversity' and 'threatened species'</li> </ol>	4
diagrams, physical representations and simple reports (ACSIS071) Science as a Human Endeavour		
Science knowledge helps people to understand the effect of their actions (ACSHE062)	<ol> <li>exploring how science has contributed to a discussion about an issue such as loss of habitat for living things</li> </ol>	4
Scientific knowledge is used to inform personal and community decisions (ACSHE217)	2. how human activity has changed the local environment	5,6
ENGLISH		
<b>Literacy</b> <i>Interpreting, analysing, evaluating</i> (ACELY1701) <i>Interacting with others</i> (ACELY1699)	<ol> <li>identify text structures and language features which are used to meet the purpose of a text</li> <li>Clarify understanding of content as it unfolds, connecting ideas to students' own experiences and present and justify a point of view</li> </ol>	5

#### **WA Curriculum**

http://wacurriculum.scsa.wa.edu.au/Science/Curriculum/F-10

#### **Background information**

Special features of our possums

**Possums are marsupials. Marsupials are** mammals of an order whose members are born incompletely developed and are typically carried and suckled in a pouch on the mother's belly.

There are four species of possum in the South-West, the Brushtail Possum, the Pygmy Possum, the Honey Possum and the Western Ringtail Possum.

The Common Brushtail Possum is the largest of the possums. They have, most commonly, a silver-grey coat with a white or pale grey belly.

The weight of Common Brushtail Possums can vary between 1.3 and 4.5 kg for males or 1.2 and 3.5 kg for females. Their head and body length measures between 35 and 55 cm and the tail length is between 25 and 40 cm. Males and females have long oval ears. Their tails are bushy and can have either a black or a white tip. Flowers and fruits form an important component of their diet, as well as native plants, and meat is eaten only very occasionally in the wild.

Adult Pygmy Possums only grow up to 8 cm long and with almost the same length of tail, they weigh around 15 grams. The fur of the western species shows a bit more red in their (light) brown to fawn fur than those in eastern Australia. Their belly fur is a shiny pure white. They feed mainly on nectar, pollen, fruits and seeds, and feast occasionally on insects - inedible parts of the insects, such as wings, are separated with the tiny fingers of their fore feet.

The Honey Possum is a tiny marsupial found only in the south-west of Western Australia.

The scientific name of the Western Ringtail Possum is **Pseudocheirus occidentalis.** It is pronounced `sue-doh-kie-rus' `oss-id-en-ta-lis' and means `false-hand' and `western'. Special features of Western Ringtail Possums include:

- Adults weigh around 1.1 kg and are approximately 40 cm in body length.
- The Ringtail has a long slim tail (**prehensile**), white for half its length, which it uses for climbing, feeding and nest building.
- They are mainly active in the evenings and early mornings.
- The fur is dark brown or grey above with cream to grey fur underneath.
- Their tail grows to approximately 41 cm long and ends in a white tip.

The Western Ringtail's diet can be:

- Jarrah and Marri leaves in inland forest areas
- 90-95% Peppermint leaves in woodlands and forest where Peppermint trees (*Agonis flexuosa*) are dominant (e.g. along the coastal areas of between Busselton and Dunsborough)
- garden plants like roses and fruit trees in urban areas.

Their selenodonty is an adaptation which assists their digestive process. **Selenodont** teeth are the type of molars and premolars commonly found in ruminant herbivores.

The possum's gut has evolved to deal with the poor nutritional value of the leaves that they eat. The possum is a **Hind-Gut-Fermenter**, meaning that it ferments the leaves it eats in a large fermentation chamber, in the form of a greatly-enlarged Caecum, which is towards the hind end of the Gastrointestinal tract. Here, the chewed leaves are fermented by a variety of bacteria, with fluid and fine particles being retained in the caecum longer than coarse particulate matter.

Once a day, while resting in its nest, the possum passes the caecum contents as soft faeces, which it eats! This second "turn" at eating enables the possums to extract any remaining nourishment from its food. At weaning, the young also eat these soft faeces, which aids in the establishment of their gut flora. At night, when they are active, they pass hard faeces, which consist of the coarser particles from their diet and twice digested material. By passively consuming the caecal pellets, the Ringtail is also saving more energy by not running around the trees all night to find the correct leaves to eat.

The females usually have one young per year carried in a pouch until about 3 months of age when it starts to ride on the mother's back. At 8-12 months of age, the young become independent and move to the nearest available habitat.

Western Ringtail Possums are **Crepuscular** animals that are active primarily during twilight, during dawn and dusk. The animals sleep during the day in nests made out of peppermint leaves and twigs called dreys. They make several dreys and use one for a few weeks before moving onto another. Ringtails are also known to nest in tree hollows of large old trees, hollow logs, balga skirts, under sedges and in disused rabbit warrens.

#### Resources

#### **Teacher resources:**

Department of Parks and Wildlife http://www.youtube.com/watch?v=XozpJpgI36Y Great video about possums

BBC Nature http://www.bbc.co.uk/nature/adaptations Adaptation information

#### Student resources:

Adaptations <u>http://www.ecokids.ca/PUB/eco\_info/topics/climate/adaptations/index.cfm</u> <u>http://studyjams.scholastic.com/studyjams/jams/science/animals/animal-adaptations.htm</u> <u>http://www.cotf.edu/ete/modules/msese/earthsysflr/adapt.html</u>

#### Activity 1.1: Venn diagram

Explain to the students what a Venn diagram is (if they don't already know).

Use a Venn diagram to explore the differences between Western Ringtail Possums and Brushtail Possums or the other two possums.

Ask students to investigate the meanings of the words that are 'bolded' in the background text-**Prehensile, Hind-Gut-Fermenter, Selenodont**, **Crepuscular** 

Discuss sets, unions, intersection and complement if applicable.



#### **Features of Possums**

#### Activity 1.2: Night hike or classroom sensory adventure

Many wild animals are active during the night, whether *nocturnal* (active only at night) or *crepuscular* (active only at dusk and dawn). By adapting to the night, these animals fill specific *niches* or roles in their habitats and reduce competition for resources among all animals. This allows diurnal and nocturnal counterparts with similar food sources, like hawks and owls, to live within the same habitat.

Nocturnal animals have physical and behavioural adaptations that increase survival in their night time habitats, including highly developed senses of smell, hearing and eyesight. Nocturnal animals may have bigger eyes and ears, moist noses, darker colours, more distinct vocalisations and quieter movements than their diurnal counterparts.

What animals might be active at night? Introduce the words *nocturnal, diurnal and crepuscular*.

Take a specific example e.g. the **Western Ringtail Possum** and ask the group how this animal is able to survive at night.

If you can't take your students out on a night hike, try blackening your classroom or other suitable room and get your students to pretend they are nocturnal animals. They will need to think about:

**Adjusting their eyes to the dark**: Our eyes can play tricks on us in the dark. As you begin the hike, students may notice that they need to rely more on their feet and less on their eyes to feel out the bumps on the trail. Following the trail can be difficult because our eyes can play tricks on us in the dark. *How has your night vision changed since the night hike began? Are you able to make out different shapes? Can you see any colours?* 

**Listening for night sounds**: Discuss competition for resources and predator/prey relationships. Many animals rely on the dark for protection from predators and have adapted a better sense of hearing to avoid danger. Likewise, nocturnal predators like owls and bats have a highly developed sense of hearing for hunting their prey. Many of these animals also use sound to communicate at night to find a mate, defend territory or find their young.

**Using their sense of smell:** Review the nocturnal animals you discussed and any animals you heard. What is an example of a nocturnal adaptation? Canines have adapted a strong sense of smell for hunting food and sniffing out danger in the dark. Foxes and even pet dogs have cold, wet noses that attract and hold scent molecules, making them excellent odour detectors. These animals keep their noses to the ground or high in the wind following scent tracks as they hunt for prey.

TRY: *Magic sniffing potion:* Pass around a mildly scented canister or natural object (garlic, mustard, pine needles, etc.). Next, place a drop of water on each student's finger to wet his/her nose. Again pass around the same object to be smelled. *Which gave a stronger sense of smell, a dry nose or a wet nose? Does the possum use its sense of smell?* 

Think about our five senses and how we used our senses differently during this activity. Discuss night vision and how it changed from the beginning to the end of the hike/classroom activity.

What was one thing you learned or really enjoyed on the night hike or classroom adventure?

#### **Online resources**

http://www.soundboard.com/sb/Animal\_Sounds\_of\_Australi http://www.youtube.com/watch?v=2jHaMmETfoc http://www.ecokids.ca/PUB/eco\_info/topics/climate/adaptations/index.cfm http://studyjams.scholastic.com/studyjams/jams/science/animals/animal-adaptations.htm

Lesson Series Two

#### Lesson series 2: Peppies for Possums-Western Ringtail habitat

#### Aim

Students will study animal habitats and the habitat of the Western Ringtail Possum (WRP). Students will understand the importance of habitat and the impacts on the WRP of the loss of habitat.

#### Learning objectives:

- 1. Habitat-what is it and why is it important?
- 2. Human impact-how, what and why (significance) do humans impact on animal habitat?
- 3. What is WRP habitat?
- 4. Where is WRP habitat located?

#### Note to teachers:

A hardcopy of the **Biodiversity for Kids: Teacher's** Kit is available from GeoCatch for loan if your school does not have a copy. **It has resources needed for Activities 2.2, 2.3 and 2.5.** 



Photos supplied by GeoCatch

#### **Curriculum links**

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#### **WA Curriculum**

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#### **Background information**

#### Animal habitat

The place where an animal lives is called its **'habitat**'. There are many different types of habitats. Some animals live all their life in just the one kind of habitat. (*E.g. worms live their whole life in a small patch of soil*) while others live in a range of habitat (*E.g. a bird may feed on the ground but nest in a tree*). A spider's habitat may be a small branch of one tree whereas the habitat for a possum would include many trees.

If there are many types of habitats available within an area, there will be more types of wildlife that live there. Human-created habitat is sometimes used by wildlife. (*E.g. bandicoots in car bodies at the tip or animals in woodheaps.*)

Animal habitats include:

- Leaf litter layer
- Ground cover layer such as grasses and herbs
- Shrub layer
- Small tree canopy
- Tall tree canopy
- Tree trunks
- Under fallen branches or under rocks
- In the soil
- In freshwater
- In saltwater.

The main determinant of suitable habitat for the Western Ringtail Possum appears to be the presence of Peppermint Trees, either as the dominant tree or as an understorey component of eucalypt forest or woodland. Western Ringtail Possums occur in and near coastal Peppermint Tree (*Agonis flexuosa*) forest and Tuart (*Eucalyptus gomphocephala*) dominated forest with a Peppermint Tree understorey. Other populations occur in Jarrah (*Eucalyptus marginata*) forest and Jarrah-Marri (*Corymbia calophylla*) forest associated with Peppermint Tree, and riverine stands of Peppermint Tree near the Harvey River, east of Harvey.

Peppermints take 15 years to become suitable habitat for Ringtails, with mature trees providing adequate leaf density to offer protection. Canopy quality and connectivity is also important for this species, to provide a refuge from terrestrial predators such as foxes and cats.

Understory vegetation is important for healthy peppermint woodland. Coastal sword sedge is particularly important for Ringtails as they sometimes nest in it, safe from predators such as foxes, cats and dogs.

The habitat around Dunsborough and Busselton has been reduced to one third of its original cover to make way for agriculture, housing and industrial development. Possums have little choice but to find shelter in people's rooves, sheds and backyard trees. Up to 20 WRPs per hectare can be found in school grounds, caravan parks and on private urban landholdings.

Western Ringtail Possums are **Crepuscular** animals that are active primarily during twilight which is during dawn and dusk. The animals sleep during the day in nests made out of peppermint leaves and twigs called dreys. They make several dreys and use one for a few weeks before moving onto another. Ringtails are also known to nest in tree hollows, hollow logs, balga skirts, under sedges and in disused rabbit warrens.

#### Resources

Biodiversity for kids – Teachers kit (State of New South Wales through the Office of Environment and Heritage)

A hardcopy of the Biodiversity for Kids: Teacher's Kit is available from GeoCatch for loan if your school does not have a copy. It has resources needed for Activities 2.2, 2.3 and 2.5.

Possum Centre, Busselton

http://www.possumcentre.com.au/index.html

Department of Sustainability, Environment, Water, Populations and Communities

http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\_id=25911

http://www.environment.gov.au/resource/hands-habitat

**BBC Schools resources** 

http://www.bbc.co.uk/schools/teachers/livendeadly/lesson2 habitat investigation.shtml

Perth Zoo

http://www.perthzoo.wa.gov.au/animals-plants/australia/nocturnal-house/

GeoCatch

http://geocatch.asn.au/geographe-catchment/biodiversity/2560-2/

ABC radio interview

http://www.abc.net.au/local/audio/2012/05/11/3501142.htm

#### Activity 2.1: Ask an 'Expert'

Invite a wildlife presenter, ranger or another person who works in the conservation area to come to your school and talk about biodiversity, habitats and conservation and in particular the Western Ringtail Possum.

This may involve a talk and/or a display of native plants and animals. A wildlife carer may be able to bring in recovering animals, discuss their rehabilitation and offer students an opportunity to get up close and personal to some of our precious native animals.

Try the following websites for "expert" contacts who may come to talk to the class:

www.fawna.com.au

www.possumcentre.com.au

#### Activity 2.2: Habitats and homes

'© State of New South Wales through the Office of Environment and Heritage'

To begin this activity, ask the students to visualise what their homes look like. How many windows does it have? What colour is it? What features does it have? On a small piece of paper students draw the home they have just visualised. Once complete, students label the top of the paper with 'My habitat'. Emphasise that the word habitat is just another word that describes the place a person or animal lives.

Habitat=Home.

Ask students why their home or habitat is important to them.

With blu-tack students attach their drawings to the board or large sheets of cardboard. Arrange these homes so that they represent a town. Discuss what other features should be added to the town to make it complete. e.g. roads, parks, schools, shopping centres, creeks, bus stops, plants and animals. Draw in the missing features.

Use the following discussion to help establish the analogy of a town operating like a natural ecosystem. Ask the students to describe the ways people and places interact in the town, i.e.

- the habitats provide shelter and a safe place to live
- people move between habitats
- people move out of their habitat to play
- some people have jobs that help other people
- some people have jobs that keep their town healthy

Emphasise the fact that the people in the town need their habitats, and each other, to survive. This is similar to what happens between animals, plants and their habitat in natural areas.

Introduce one of the ecosystem posters of your choice. Discuss: we call some of the places we live towns or cities, what do we call the place that plants and animals live? List these on the board. One word that can be used to describe the poster is 'ecosystem'. This word is used to describe natural places that have a variety of plants and animals that rely on each other and their habitat in natural areas.

Emphasise that our cities, suburbs and towns are home to native plants and animals as well as people. We live in an urban ecosystem.

Ask students to imagine they are an animal e.g. a bird, lizard, insect, frog, fish or possum. Where would these animals fit into the displayed ecosystem poster?

• Habitats for animals e.g. bark, rocks, trees, lakes, rivers, shrubs, grasses, logs.

What kinds of habitats do the plants in the poster require?

• Habitats for plants e.g. next to a rock or river, on a hill, or on a branch, ocean floor.

Split the class into eight groups and distribute the remaining ecosystem posters between them. The ecosystems shown in the posters are semi-arid, grassland, woodland and forest, wetlands, creeks and rivers, alpine, rainforest, coastal, agricultural and urban. These terms describe the type of ecosystem shown in the posters. Students examine their poster and identify plant habitats and animal habitats, then list these on butcher's paper. Below the lists, name one example of an interaction in the ecosystem e.g. kookaburra needs a hollow in a tree to nest in.

Ask the students to describe some of the parallels between the interaction between plants and animals in an ecosystem, and their own interactions with their town, that is;

- Some animals move between habitats
- Some animals move out of their habitat to find food
- Some plants and animals help to keep the ecosystem healthy
- Animals eat plants and other animals

Develop a class definition for the words 'habitats' and 'ecosystem'.

#### Activity 2.3: Blindfold game

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This game helps students explore the features of plants as well as the variety of plants found in your playground. The game is played in pairs. One student is blindfolded. Use material such as blindfolds, sleeping masks or jumpers.. The student who can see spins their blindfolded partner to help disorient them, and then leads them to a plant. The blindfold student examines the plant checking for features such as size, texture, smell, height, leaf shape.. The student is led away and given a few more spins. Once the blindfold is removed the student tries to find their plant again.

#### Activity 2.4: Healthy habitats activity and worksheet

Activity adapted from *Biodiversity for Kids- Teachers Kit*: '© *State of New South Wales through the Office of Environment and Heritage*'

Working in small groups, complete the 'Healthy habitat' worksheet (following page). The emphasis of this worksheet is to look at layers and components of a healthy habitat rather than looking at an individual species. To minimise duplication, assign different parts of the school to each group. Additional adults, such as parents, could be used to supervise and guide students as they complete their survey. Students record the presence of different layers and other healthy habitat components on the worksheet. Use a digital camera to record photographic evidence of the places the students are looking at.

Back in the classroom students examine the large map of the school. Students indicate the presence of individual plants, layers and other habitat components on the map by cutting the relevant symbols from their 'healthy habitat' worksheet and pasting them on the map. Use photos taken during the survey to further illustrate the biodiversity status of these areas. Using this map, evaluate the school in terms of how it supports biodiversity. At a later stage this map could be used to guide a biodiversity action plan as it should show areas that are good for biodiversity and also those areas which are currently lacking.

Resource sheet 2.4.1

## Healthy Habitats Worksheet

A healthy habitat provides all of the things plants and animals need.

Illustrate the different habitat parts in the table below.

Tick the boxes that describe the area you are looking at.

My area is \_\_\_\_\_

Trees	Shrubs	Ground cover
none 🗆 some 🗆 lots 🗆	none 🗆 some 🗆 lots 🗆	none 🗆 some 🗆 lots 🗆
Leaf litter or mulch	Rocks	Logs or fallen branches
none 🗆 some 🗆 lots 🗆	none 🗆 some 🗆 lots 🗆	none 🗆 some 🗆 lots 🗆
Tree Hollows or nesting	Flowering plants	Water
boxes		
boxes		
none 🗆 some 🗆 lots 🗆	none 🗆 some 🗆 lots 🗆	none 🗆 some 🗆 lots 🗆

#### Activity 2.5: Ecosystem research

© State of New South Wales through the Office of Environment and Heritage'

Working in small group students use the design brief work sheet and the photos and text from the ecosystem posters, to plan and then create a 3D model or a diorama of a selected ecosystem. The design should show as many features as possible including appropriate plants and animals. Students should have access to a range of natural and non-natural materials, and decide which materials best represent the characteristics of their ecosystem. Limit the size of the models to A4 or less.

Student design brief

Your task is to:

- design and make a 3D model or diorama of an ecosystem to be used in an advertisement to tell people about biodiversity.

The model must include:

- Important features of the ecosystem
- Plants and animals found in the ecosystem

The design must:

- Be maximum A4 size
- Use a variety of natural and non-natural materials

When complete students report to the class on the main features of their ecosystem, how their model could be used to promote biodiversity, and the design process and materials they used.

## Threatened Species Species and Biodiversity Lesson Series Three

• 5

#### Lesson series 3: Threatened species & biodiversity

#### Aim

Students will study biodiversity and the threatened species, the Western Ringtail Possum (WRP). Students will understand the importance of biodiversity and the human impacts on the WRP. Students will gain an understanding of their local Noongar Wardandi aboriginals and how they found and looked after their food supplies.

#### Learning objectives

Students will develop a knowledge and understanding about:

- 1. Biodiversity what is it and why is it important?
- 2. Threatened species what, how and why are they significant?
- 3. Threats what are they?



Photos (clockwise from top left) courtesy of Mosman Council, GeoCatch, abc.net.au

a de la companya de l		Elaborations	Year
IENCE			
Science Understanding Biological Science			
Living things have life cycles (ACSSU Living things, including plants and an depend on each other and the envir to survive (ACSSUO73) Living things have structural features adaptations that help them to surviv their environment (ACSSU043) The growth and survival of living thin affected by the physical conditions of environment (ACSSU094)	D72) imals, onment s and e in ngs are f their	<ol> <li>investigating how plants provide shelter for animals</li> <li>investigating the roles of living things in a habitat, for instance producers, consumers or decomposers</li> <li>observing and describing predator-prey relationships</li> <li>predicting the effects when living things in feeding relationships are removed or die out in an area</li> <li>recognising that interactions between living things may be competitive or mutually beneficial</li> </ol>	4 5 6
Science Inquiry Skills Planning and Conducting Suggest ways to plan and conduct investigations to find answers to que (ACSIS065) Communicating Represent and communicate ideas a findings in a variety of ways such as diagrams, physical representations a simple reports (ACSIS071)	estions nd nd	<ol> <li>investigating the definition of 'biodiversity', questioning, analysing and drawing conclusions</li> <li>using creative means to communicate the terms 'biodiversity' and 'threatened species'</li> </ol>	4
Science as a Human Endeavour Science knowledge helps people to understand the effect of their actions (ACSHE062) Scientific knowledge is used to inform personal and community decisions (ACSHE217)	n	<ol> <li>exploring how science has contributed to a discussion about an issue such as loss of habitat for living things</li> <li>how human activity has changed the local environment</li> </ol>	4 5,6
ENGLISH			
<b>Literacy</b> <i>Interpreting, analysing, evaluating</i> (ACELY1701) <i>Interacting with others</i> (ACELY1699)		<ol> <li>identify text structures and language features which are used to meet the purpose of a text</li> <li>Clarify understanding of content as it unfolds, connecting ideas to students' own experiences and present and justify a point of view</li> </ol>	5

#### WA Curriculum

#### http://wacurriculum.scsa.wa.edu.au/Science/Curriculum/F-10

#### **Background information**

Biodiversity

Biodiversity is the variety of all life forms – the different plants, animals, fungi and microorganisms, the genes they contain and the ecosystems they form.

Millions of years of isolation from other continents have resulted in the evolution of over one million distinctive kinds of native plants and animals in Australia. Most of these plants and animals are not found anywhere else in the world. A native plant or animal is generally defined as one that is found in an area or country. An important aspect of biodiversity is the interconnectedness between all species, the way in which all species depend on each other for survival.

Biodiversity provides all of our food and many industrial products and medicines. Biodiversity also ensures clean air, water and fertile soils.

In Australia, more than 80% of plant and animal species are endemic, which means that they only occur naturally in Australia. Western Australia is one of the most biologically diverse regions in the world. The south-west of WA is one of the world's 34 internationally recognised terrestrial hotspots for biodiversity and the only one recognised in Australia. This region has the highest concentration of rare and endangered species in Australia.

Western Australia boasts: -

- more than 13,500 kilometres of coastline and more than 10,000 offshore islands
- 26 of Australia's 80 bioregions, from sub-alpine areas to tropical rainforest and desert
- 141 of Australia's 207 mammal species, 25 of which are unique to WA
- 439 reptile species, 187 of which are unique to WA
- more than 1600 fish species
- hundreds of thousands of invertebrate species
- more than 12,000 species of vascular plants, and an unknown number of fungi, lichens and other non-vascular plants.

#### **Threatened Species**

Species or ecological communities are put at risk by 'threatening processes', or any process or action that directly or indirectly affects the survival, abundance, or evolutionary development of a native species or ecological community.

The Western Ringtail Possum is listed as a Schedule 1 species ('Fauna that is rare or likely to become extinct') under the Western Australian Wildlife Conservation Act (1950), and is a trigger species under the Commonwealth Environment Protection and Biodiversity Conservation Act (1999) ('the EPBC Act'), where it is listed as 'Vulnerable'. The Western Ringtail Possum also listed as 'Vulnerable' by the World Conservation Union as it has disappeared from 90% of its former range.

The main reasons that animals and plants become threatened or extinct are because of habitat loss, competition and predation from introduced species and direct action by people (e.g. hunting, poison baiting for feral animals). Humans have great power to change and destroy habitats and therefore reduce the chances of species surviving.

Species and their habitats are affected when vegetation is cleared for uses such as agriculture, forestry, mines, suburbs and roads; when rivers are dammed to store water; or when wetlands are drained for developments. Introduced animals such as foxes, rabbits, and feral animals (cats and dogs) can also cause population decreases in native species that can lead to them becoming threatened. Habitat loss has also resulted in remaining bushland becoming fragmented, which means the animals can't travel safely through the bush and are more vulnerable to predation.

#### Threats to Western Ringtail Possums

The most significant threat to Western Ringtail Possums is the ongoing clearing of habitat in the Dunsborough-Busselton area for urban development. This often results in a lack of old trees with suitable hollows or canopy cover for the possum to rest or build their dreys in. Peppermint trees need to be at least ten to fifteen years old before they are suitable for nesting in by Ringtails. Some trees take hundreds of years to grow to a size suitable to provide hollows for other species such as the threatened Black Cockatoo, who generally prefer to nest in Marri trees that are at least 200 years old!

Predation by cats, dogs and foxes and death or injuries by cars are also major threats to our possums. Death of Peppermint trees from a range of factors that may include "dieback", climate change and salinity is also a threat to the habitat of WRP.



Aboriginal information (supplied by Josh Whiteland, Koomal Dreaming)

The aboriginal people of south Western Australia were the first inhabitants of the area. Aboriginal groups from the area that stretches from Kalbarri to Esperance, are known as Noongar. The local Noongar people are known as Wardandi people, meaning 'forest people by the sea'. They live within the 'Cape to Cape' and 'Warren Blackwood' region. The Wardandi people of the Busselton, Dunsborough and Margaret River areas of Australia's south-west have walked this ancient land for almost 50,000 years.

Noongar people had to catch and gather the food they wanted to eat. The Western Ringtail Possum is a food source for the local Wardandi people. The aboriginal name for the Western Ringtail Possum is Gnuraren and the word for Peppermint trees is Wonang.

Traditional owners use native reeds (round or boxed) and spliced peppermint bark to make thin but strong rope creating small traps for marsupials such as Ringtail Possums and Brushtail Possums ("Koomal"), positioning traps in areas that are well used but these animals.

When hunting, they look for possum signs such as worn bark on branches, droppings, scratch marks created by the claws and the distinct smell of a possum nest hidden amongst clustered peppermint leaves.

Noongars only eat the female possum as the male has a strong overpowering flavour in the meat. The female possum is only hunted when they are not nesting or carrying young to ensure next year's food supply. (Note: females normally breed at the end of Autumn. Gestation is about 3 weeks and then the young possum spend 5 months in the pouch before riding on mums back for another 2 months. Source: CALM/DPaW, 2005). Once hunted the meat is eaten and skins are used for clothing. Bones are used for engraving and spear tips.

Possums are just some of the natives foods that are traditional hunted or collected. Others include Western Grey Kangaroos ("Yonga"), Emu ("watji"), race horse goanna ("Kurda"), snake ("Norn") and many birds, ducks, swans, fish, crabs, stingrays, eels, octopus, squid and abalone, just to name a few.

Wardandi Noongar people have a lot of respect for animals and plants as spiritual beings. They are totemistic people believing in reincarnation animals are considered sacred beings as well as a food source. They maintain the traditional knowledge by passing it down to the new generation. The children are involved in the process of caring for country ("Boodja") to help to grow, nurture and understand the importance of connection, identity and belonging and living in harmony with the environment.

Aboriginal people use their knowledge of the seasons and weather patterns for hunting and are careful not to upset the balance of breeding and reproduction. They maintain an intricate system and way of life living by the six seasonal rotation.

#### Wardandi Noongar six seasonal rotation

The Noongar people of the South West region in Western Australia live by the six seasonal rotation. They move within their traditional boundary lines every two months, while living in harmony with the environment. During the colder months they would move to inland lakes, river systems and waterholes. When the season changed to warmer months they moved back along sheltered bays, estuaries and coastal camping areas. By hunting certain animals at the right time of year and using traditional fire and farming techniques they are able to ensure their food sources will not deplete. Understanding the interconnectedness between plants, animals, weather movements and spiritual beings allows Noongar people to have a strong connection to country, a sense of belonging to the land and identity.

Dec/Jan - Birak - Dry and hot long days, warm nights. Small controlled fires used for hunting animals in scrublands. Low tides, good time to collect abalone and other shellfish. Time for blue groper, octopus & oysters.

Feb/Mar - Bunuru- Hot days with nights cooling, good time to camp and fish along the west coast and south coastal areas for herring, taylor, bream and migrating salmon. Water levels low in river systems good time to catch goanna.

April/May- Djeran - Overcast days and nights cold, time to move camp back inland along lakes and rivers. Collect vegetables, catch crab & fish in estuaries and bays. Time for celebrations and ceremonies.

Jun/July - Makuru - Cold days and nights, winter rains, strong south west winds. Time to build strong paper bark mia's. Hunt kangaroo & wallaby, use skins for warmth. Camping inland in sheltered areas, large cooking fires during the cold nights. First rains bring fertility to the soil, emus nesting.

Aug/Sep - Djilba - Warming days, cold nights. Time to collect flowering fruits and camp in sheltered bays and waterways. Second rains fill lakes and waterholes. Good time to **hunt marsupial animals**, crab, snapper, squid and marron.

Oct/Nov - Kambarang – Hot days with nights warming and winds easing. Lots of baby ducks, emus, possums and kangaroos. Time to start moving camp towards the coastal areas, estuary systems and river mouths to build fish traps and make fishing spears.

Also refer to Resource Sheet 3.3.1 at the end of this lesson series.

#### Resources

Department of Parks and Wildlife <u>http://www.youtube.com/watch?v=XozpJpgI36Y</u> Great video about the WRP.

#### Department of Education WA

http://www.det.wa.edu.au/curriculumsupport/sustainableschools/detcms/portal/w.deh.g ov.au/education

The Australian Sustainable Schools Initiative - WA (AuSSI - WA) is part of the national Australian Sustainable Schools Initiative, developed by the Australian Government. Great case studies and resources.

Northern Agricultural Catchments council Schools program http://www.inlandtoocean.com.au/Default.aspx

Fantastic resource! Inland to Ocean is designed for teachers and students in the Northern Agricultural Region (NAR). The main purpose of this package is 'Helping kids to help the environment'. Adaptable to any region.

Threatened Species <u>http://www.environment.gov.au/biodiversity/threatened/species.html</u> The how and why of threatened species.

Logs have Life Inside website <u>http://www.environment.gov.au/land/publications/firewood-kit/index.html</u> Great activities and songs.

WWF (World Wide Fund for Nature) Australia Threatened Species Network http://www.wwf.org.au/about us/index.cfm?uGlobalSearch=threatened+species

Information on threatened species day

Bio-benefits <u>http://www.amnh.org/ology/features/biobenefits/</u> Answers basic questions about biodiversity

http://www.amnh.org/ology/features/stufftodo\_bio/endangered.php Endangered Species game

Ceres Victoria <u>http://sustainability.ceres.org.au/resource/</u> Great biodiversity activities and ideas.

Museum of Victoria <u>http://museumvictoria.com.au/education/education-kits/biodiversity-snapshots/</u> Biodiversity Snapshot activities, (see Activity 3 in this lesson plan)

http://www.greeningaustralia.org.au/uploads/Our%20Services%20 %20Toolkit%20pdfs/VIC 6\_audit\_pack\_JM.pdf Great school grounds audit for biodiversity with activities

http://climatekids.nasa.gov/ A good range of climate change related activities for students

http://meetthegreens.pbskids.org/ General environmental games

Rochedale State School Yr 5 class http://www.rochedalss.eq.edu.au/rdale/animal.htm Show what students can do with their work

#### Activity 3.1: Biodiversity collage

© State of New South Wales through the Office of Environment and Heritage

Working in pairs students are provided with a letter from the word 'Biodiversity'. At this stage don't tell them what the word actually is. Students create a biodiversity collage by covering each letter with pictures of native plants, animals and the places they live. Pictures can be obtained from newspapers, magazines, travel brochures and calendars.

Once complete ask the students to rearrange the letters from the collage to make a word. What words can they create? Will they be able to make the word biodiversity'? If the students are having difficulty you may need to provide clues like starts with a 'b' ends with a 'y' and so on.

In small groups students use a dictionary to discover the meaning of the word 'biodiversity'. The word may need to be separated into the individual parts e.g. bio+diversity. Biodiversity is actually a contraction of 'biological' and 'diversity'. Students write down their own definition of the word.

Bio= a prefix meaning life (plants and animals) Diversity= a variety of things (lots of different plants and animals)

Decide on a class definition for biodiversity. For example biodiversity could be described as 'the different kinds of plants and animals and the places they live'. Refer back to the 'Biodiversity' collage to illustrate the components of biodiversity that are described in the definition.

#### Activity 3.2: What's in our school?

© Museum Victoria

Have you ever wondered what plants and animals live in your school? You would have seen lots of plants and animals already, but have you seen them all? The number of different plants and animals in an area like your school is called its **biodiversity**.

#### Your task

You will be measuring the biodiversity of your school. To do this there are two groups of living things you will need to measure: plants and animals.

You can start your own journal to write down, draw or take photos of any animals or plants you find.

#### Plants

Write in your journal how many trees and shrubs there are in your school.

- A shrub is a plant with a woody trunk that is less than 3 metres tall when fully grown.
- A tree also has a woody trunk, but is more than 3 metres tall when fully grown.

Either you or your teacher should measure a height of three metres so you can use it as a rough guide when looking at plants. You don't need to be exactly right when deciding if something is a tree or a shrub – you can use your best guess.

If you have a camera you can use it to take photos of every type of plant you have in your school. If you know the names of any of the plants, or if you can find out names from a teacher or parent, write these down as well. You might even want to find out if the plants are native to Australia, or if they have been introduced from other countries.

#### Animals

There are five main types of animals you could find in your school:

- mammals, like dogs, mice and possums;
- birds, both native and introduced;
- invertebrates, which include worms, insects and spiders.
- frogs, and
- reptiles, like lizards

Using Biodiversity Snapshots record in your journal the names of all the animals that are in your school or school ground.

If you have a camera you can use it to photograph every animal you can find. Here are a few guidelines:

- Never pick up bugs or spiders, just photograph them. Some may bite or sting, and picking bugs up can damage them.
- The best way to spot birds is to find a comfy spot and sit really still. If you are quiet, birds will come to you.
- When photographing birds, you might need a camera that can zoom, as they may be far away.
- When photographing animals, don't forget about any class pets in your school.

#### Activity 3.3: Biodiversity through the seasons

Students create a calendar of the Noongar six season rotation including the creation/design of a symbol for each season.

Symbols could refer to the weather of those seasons, the activities the aboriginals carried out, the plants they used or the animals that they hunted.

Students could also identify the season when female possums are carrying young and could not be hunted.

For further information and examples of symbols and calendars used to represent the six seasons, see Resource Sheets (3.3.1 & 3.3.2) provided at the end of this section.

#### Activity 3.4: A group biodiversity poem

© Biodiversity Scotland

Preparation:

Spend some quiet time reflecting on the special qualities of a natural space outdoors and focus in on some of the plants, animals or topics that may have been identified through the previous Biodiversity activities. Encourage pupils to think about descriptive words as they explore the environment through their senses.

Divide the class or group into teams of three.

Explain that each team is going to write a poem on a biodiversity theme - each person will have only partial knowledge of what else has been written. Place teams well apart, ideally in a sheltered outdoor area.

The first person of each team writes the first line of the poem then passes it on the second person.

The second person writes a line that responds to the first person's line, then writes another, then folds the poem so the third writer only sees the last line written.

The third person writes a line responding to the second person's line, then writes another. The first person writes the last line of the poem.

Each group can be given the option to read out their poem to the rest of the group, or poems can be pinned up to retain anonymity.

## Activity 3.5: Environmental word chart (threatened species theme)

Word	Your definition	Dictionary definition
Threat		
Conservation		
Environment		
Introduced		
Susceptible		
Fauna		
Habitat		
Eradication		
Native		
Biodiversity		
Endangered		
Species		
Genes		
microorganisms		
endemic		
interconnectedness		
ecosystems		
predation		

#### Activity 3.6: Get involved in National Threatened Species Day

National Threatened Species Day is held on **7<sup>th</sup> September** each year to encourage the community to help conserve Australia's unique native fauna and flora. We can all take action to prevent further extinctions by restoring healthy numbers of endangered species and ecological communities in the wild.

National Threatened Species Day was first held in 1996, to commemorate the death of the last Tasmanian Tiger in captivity in 1936 in Hobart. The concept was developed by the Threatened Species Network, a community based program of the World Wide Fund for Nature and the Commonwealth Government's Natural Heritage Trust, as a way to showcase Australian threatened species. By focusing attention on the plight of many of our threatened animals and plants, Threatened Species Day aims to encourage greater community support and hands-on involvement in the prevention of further losses of Australia's unique natural heritage.

A number of events are coordinated across Australia for National Threatened Species Day to raise community awareness about the plight of threatened species in Australia and to encourage community participation in conservation activities. Activities range from exhibitions and festivals, to displays, guided walks, workshops and a range of other community education and promotional activities.

'Talk your walk' - let other people know about how important it is to care for the environment. You could:

- write a letter to a newspaper on an issue concerning your local area
- invite the local paper to write an article about what your school is doing for biodiversity
- make a poster for your local Community Notice Board
- write articles for the school newsletter
- use e-mail and internet sites to discuss environmental issues with other schools
- tell family and friends what you've learnt about biodiversity

#### Report possum sightings

http://www.possumcentre.com.au/Dynamik/workfiles/Possum\_report.php

See lesson plan series 4 for more ideas about helping possums and their habitat. These activities can be used to draw the attention of your school to the possum's plight.

Some other ideas:

Banner painting

Promotional poster

Shopping Centre displays in conjunction with your local wildlife group e.g. FAWNA, Possum Centre

Schools Pizza and Possum night-walk

#### **Resource Sheet 3.3.1: Noongar seasons**

#### **Noongar Seasons**

The Noongar year is traditionally divided into six seasons relating to the prevailing weather conditions and the types of foods the Noongar people could expect to find. The Noongar seasons vary slightly from location to location, depending on the local environment and local dialect. The following is a general description:



\* Source: Hunters and Gatherers by Peter Bindon and Trevor Walley. Publisher Department of Conservation and Land Management.

Resource Sheet 3.3.2: Noongar six seasons calendar



An example of a six seasons calendar (supplied by Josh Whiteland: Koomal dreaming 2014)

## Helping Ringtail Possums Lesson Series Four

## Lesson series 4: Helping Ringtail Possums at home and at school

#### Aim

Students build on an understanding that Western Ringtail Possums (WRP) are threatened and need our help. Students will understand ways to help the WRP, at school and at home.

#### Learning objectives

Students will develop a knowledge and understanding about:

- 1. How to take personal action to help Ringtail Possums survive
- 2. The importance of raising awareness about Ringtail Possums as a threatened species



Photo supplied by GeoCatch.

#### **Curriculum links**

AUSTRALIAN CURRICULUM		
Strand	Elaborations	Year
SCIENCE		
Science Understanding Biological Science		
Living things have life cycles (ACSSUO72)		
Living things, including plants and animals,	<ol> <li>investigating how plants provide shelter for animals</li> </ol>	
depend on each other and the environment to survive (ACSSUO73)	<ol> <li>investigating the roles of living things in a habitat, for instance producers, consumers or decomposers</li> </ol>	4
Living things have structural features and	18. observing and describing predator-prey relationships	5
adaptations that help them to survive in their environment (ACSSU043)	<ol> <li>19. predicting the effects when living things in feeding relationships are removed or die out in</li> </ol>	
The growth and survival of living things are affected by the physical conditions of their environment (ACSSUO94 )	an area 20. recognising that interactions between living things may be competitive or mutually beneficial	6
Science Inquiry Skills Planning and Conducting Suggest ways to plan and conduct investigations to find answers to questions (ACSIS065)	<ol> <li>investigating the definition of 'biodiversity', questioning, analysing and drawing conclusions</li> </ol>	, 4 ;
Represent and communicate ideas and findings in a variety of ways such as diagrams, physical representations and simple reports (ACSIS071)	<ol> <li>using creative means to communicate the term 'biodiversity' and 'threatened species'</li> </ol>	s 4
Science as a Human Endeavour		
Science knowledge helps people to understand the effect of their actions (ACSHE062)	<ol> <li>exploring how science has contributed to a discussion about an issue such as loss of habita for living things</li> </ol>	4 t
Scientific knowledge is used to inform personal and community decisions (ACSHE217)	8. how human activity has changed the local environment	5,6
ENGLISH		
<b>Literacy</b> <i>Interpreting, analysing, evaluating</i> (ACELY1701) <i>Interacting with others</i> (ACELY1699)	<ol> <li>identify text structures and language features which are used to meet the purpose of a text</li> <li>Clarify understanding of content as it unfolds, connecting ideas to students' own experiences</li> </ol>	5
	and present and justify a point of view	

#### **WA Curriculum**

http://wacurriculum.scsa.wa.edu.au/Science/Curriculum/F-10

#### **Background information**

Living so closely with wildlife offers many opportunities to experience nature but can sometimes cause problems too.

- 1. Learn to appreciate your local wildlife such as possums
- 2. Learn to love native gardening unlike roses and other exotic species, native plants are more suited to the local soil type and climate and have less chance of being negatively affected by possums. Possums have a particular liking for new rose buds and shoots and often feast on these overnight. There are numerous attractive spring and summer flowering native species that will also brighten up your garden.
- 3. Seal house eaves and install one or more possum boxes in your yard to provide alternative habitat for the possums and encourage them not to nest in your roof.
- 4. Keep pets indoors at night domestic dogs and cats have a huge impact on possums. Even a harmless scratch from a cat can kill a possum quickly from infection.
- 5. Possums prefer to eat native leaves than roses give possums an alternative food source to your roses or fruit trees.
- 6. As a last resort there are some deterrents available such as netting, security lighting and chemical deterrents. However, these options can be costly and may have negative outcomes for the possums, your neighbours or other wildlife such as birds.

It is illegal to catch or trap Ringtails. A \$10,000 fine applies. If you have one in your roof, the best way to encourage the possum is to wait until evening when it comes out to feed. Whilst they are out, block all potential access points in the roof. Useful materials include sheet metal, vinyl, wood or wire netting with a mesh size smaller than 20cm, which should be fitted securely and snugly to prevent a possum from getting a claw hold and lifting the cover off the hole.

Nest boxes can be placed in the trees around the area to provide alternative nests or to encourage possums out of the rooves.

#### Activity 4.1: Build a basic possum box or drey

The materials you will need are:

Second-hand wood or 3cm thick plantation pine or structural pine plywood, screws, drill.

Old pine pallets are a good source of wood and are often free (ask first!) from building sites.



A sturdy branch can be screwed firmly to the front of the box and is an optional extra that will help the possum enter and exit more easily. You can also drill four holes through the floor near each corner to allow any water that might get in to drain out.

Contact FAWNA or the Possum Centre for more assistance and advice.

www.fawna.com.au

www.possumcentre.com.au

### Ringtail Drey Construction

#### What you will need

Wire baskets Wire chains Cable Ties

2 x 30cm with coco fibre liners that are supplied with the baskets to hold the drey together (up to 20 required)

#### Tools

Pliers

Screwdriver (or anything sharp) to make a small hole in the coconut liner to help pull the cable ties tight (optional) Scissors to cut the liner for entry and exit holes and cut cable ties **Tin Snips** to cut metal wires on drey

#### Making the Drev

#### Step1 - Joining the coco liner to the wire basket

- Join the coco liner to the basket at a minimum of every 4 wires.
- Poke a hole in the liner with a screwdriver and place a cable tie around both wires and the liner to join together. Ensure you also do the rim of the basket. Pull the cable tie tight with use of the pliers.
- · The more cable ties the better the overall life of the drey.
- · Continue this on the other half of the drey.

#### Step 2 - Make an entry/exit hole

- Find the wire which is closest to the join of the basket (along the rim).
- · Cut this wire off completey. This makes the entry hole.
- Cut off a second wire at the rear of the basket for the exit.

#### Step 3 - Cutting the liner (entry & exit hole)

- Cut the liner as shown to make the entry hole. Don't cut off the flap Entry: of liner, just cable tie this to the wire basket for extra strength.
- Exit: Do a single cut only, the ringtails will do the rest! This is their escape route if needed

#### Step 4 - Join baskets together

Place both completed drey halves together. Cable tie the wire rims together (including the liner) at minimum every 4 wires.

#### Step 5 - Add wires

Reattach the wire chain hanger to the top basket only. The other wire chain can be used later to secure the drey in the tree.



Step 5. Reattach the wire chain an completed drey (cable ties here not yet Photos by Bronwyn Hilling The two

#### Step 6-Placement of drey in a tree

- Place the completed drey into a tree at least 3 meters off the ground, facing north/north east direction.
- A forked branch is recommended so the ringtail can easily crawl into and out of the drey.
- Use leaves/twigs from the tree to help camoflauge the drey from predators including inquisitive humans!



Tools needed to make a ringtal drey.



Step 1: Join the liner to the wire basket



Step 2: Cut off a wire for an entry hole



Step 3: Cut a flap in the liner for the entry



Step 4: Join the two baskets together

ABM: 45 549 406 633 Postal: PO Box 291, Patterson Lakes 3197 Telephone: 0412 433 727 Email: info@awarewildlife.org.au Web: www.awarewildlife.org.au

#### Activity 4.2: Take part or organise your own tree planting day

Speak to your local catchment group or local council environment officer and ask if there is a suitable site at your school or local reserve to plant local native trees and shrubs for possum habitat.

Organisation	Contact Details
GeoCatch	97810111, geocatch@water.wa.gov.au
Dunsborough Coast and Landcare - Ron Glencross	Email <u>d_calc@westnet.com.au</u>
Land for Wildlife Cherie Kemp Department of Parks and Wildlife	9752 5555
Mathilde Breton City of Busselton	97810444
Rae MacPherson Shire of Capel	97270222

Some schools will already have a Possum Management Plan, contact GeoCatch to see if your school was involved in the project.

#### Activity 4.3: Develop a community display

Develop a display based on all the ideas of how to protect possums and live happily with them.

Contact the Western Ringtail Action Group (WRAG) for advice on your ideas and to look for opportunities to present the information to the community. WRAG can support and suggest ways to get involved in community education.

Contact WRAG via GeoCatch - geocatch@water.wa.gov.au

#### Some things to consider

When thinking about some of the activities suggested above consider the following:

- Who do you have to get permission from to make these changes?
- Which changes are practical and achievable?
- Will it cost the school money? If so, where will this money come from? Could you hold a fundraising event?
- Could parents be involved? If so, how could we convince them to help?

#### Why not tell even more people about the great work you are doing?

Does your school have its own website?

Why not write up your findings and put them, and some digital photos, on the website?

You could even create your own wiki about your school and every time you spot a new animal you could add it with a photo. Free wikis are available here:

http://www.wikispaces.com/site/for/teachers

#### Activity 4.4: Possum poem

Write a poem about possums including some of their habits, where they live and how you can protect them. Think about food, shelter, predators and other risks to possums.

Example 1: (© RSPCA)

Each night when I'm about to sleep, I can hear a possum begin to sneak! First I hear a shuffle... and then I hear a great big scuttle! Whoosh! Out the roof I see him leap! Onto the power lines he creeps! Along the skyline he races along! Gee he moves quick, where has he gone?! What should I do RSPCA? My dad wants to send him away!

from Chris, Age 8

#### **Dear Chris**

What an adventure your possum is on! Climbing out your house at dusk til dawn! Gallivanting the countryside to eat and play, only to return at the start of each day! Your dad's not alone in wanting some quiet, if you follow these instructions, you actually might! See possums love old hollows and native trees, but with all these new houses, where might they be? How 'bout a project, for you and your dad, to make a new home for your lil' possum lad! A bit of time, and a bit of care, will have your possum no longer wanting to share!

#### from Janet

RSPCA Wildlife Coordinator

(Poem written by Claire Boyce, 2008)



#### **Geographe Catchment Council**

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