25. Animal antics

Aim

Students research the habitat requirements and adaptations of selected native animals.

If the class will be going on excursion to a park, provide students with a list of animals that occur in that park so they can investigate some of those particular species.

Materials

- Resource sheet 25a: Some common native animals in parks.
- Resource sheet 25b: Some threatened native animals.
- Reference books, CD ROMs and websites on Australian animals.

Activities

1. Select a species of native animal.

2. Research your chosen species to find out:

a) What type of plant community it lives in.

b) What it eats.

c) What eats it.

d) Adaptations it has for living in its environment.

e) Any threats to its long-term survival.

3. Compile an electronic or poster presentation on your selected animal.

4. Present your findings to the class.

Sugar Glider © MT

25a. Some common native animals in parks

All animal species have particular habitat requirements and can only survive if these conditions are met. Animals require adequate food resources, shelter and suitable nesting and breeding sites. Each vegetation type is home to a different community of animals. Some animals are restricted to one vegetation type while others can live in a diverse range of vegetation types.

For example, wet sclerophyll forest areas support bird species such as the Superb Lyrebird. The more open and drier messmate and peppermint forests support bird species such as the White-eared Honeyeater and the Boobook Owl.

Some of the most abundant native mammals include the brown antechinus, brush-tailed possum, ringtail possum and bush rats. Echidnas, wombats, sugar gliders and black wallabies are widespread.

Skinks are a common reptile species and a variety of frogs inhabit swamps, creeks and channels in parks.

SOME COMMON NATIVE FAUNA

Sugar Glider *Petaurus breviceps*
The sugar glider prefers forest areas where tree hollows are available. Their diet consists of nectar, pollen, eucalypt sap and insects. They have soft grey fur, with a dark brown to black dorsal stripe along their back from the nose to the tip of the tail.

They are usually active at night. Like all gliders they have a membrane that enables them to glide from tree to tree. Sugar gliders live in small social groups, often sharing a common nest.

Brown Antechinus *Antechinus stuartii*
The brown antechinus is a small carnivorous marsupial. It is brownish grey in colour, with a long head, thin crinkled ears and bulging eyes.

Its preferred habitat is wet and dry sclerophyll forests, particularly areas where there is thick ground cover and an abundance of logs. It is predominantly a nocturnal animal preferring to spend the greater part of the day within its burrow. The brown antechinus feeds on beetles, spiders, cockroaches and other invertebrates.

Mating takes place between August and September. Prior to the commencement of the breeding season the male becomes more and more aggressive. During the breeding season males mate with one or more females and copulation lasts about six hours. Shortly after the breeding season all adult males die from stress related illnesses. Females live for up to three years and litter sizes tend to be between 6 to 10 young.

Echidna *Tachyglossus aculeatus*
The echidna is a monotreme, one of only two egg laying mammals found in Australia, the other being the platypus.

The echidna's body is covered with sharp spines which provide it with an excellent defence mechanism. If disturbed the animal will curl itself into a tight ball. The animal also has a long snout with a long sticky tongue which enables it to gain access to ant and termite nests. Ants, termites and other invertebrates are their major food sources.

This solitary animal spends its day sleeping under bushes, in hollows or burrows, and is only active at dawn or dusk.

They mate in July and August. The female lays a single egg with hatching occurring about ten days later. Newborns are blind and spend their first three months attached to a teat in the female's pouch, becoming independent at about eight months.

25b. Some threatened native animals

Many parks contain remnants of formerly widespread forests or other vegetation types. The survival of the native fauna within a park is dependent on the protection and management of these vegetation remnants.

Threatened fauna can be classified into three major groups based on State, regional and local population levels. For example, the broad-toothed rat only occurs in isolated colonies in Victoria whilst other species such as the swamp wallaby and superb lyrebird are relatively abundant in some areas of Victoria but are in danger of extinction at some regional or local levels.

The following table lists some threatened fauna and their particular habitat areas. It provides examples of threatened species at State, regional and local population levels.

Threatened in Victoria	**Main Habitats**
Barking Owl	Dry sclerophyll forest and woodland
Broad-tooth Rat	Wet sclerophyll forest
Powerful Owl	Wet and dry sclerophyll forest
Sooty Owl	Wet sclerophyll forest
Tree Goanna	Dry sclerophyll forest and woodland
Yellow-bellied Glider	Wet sclerophyll forest
Threatened regionally in central Victoria	
Australian King Parrot	Wet sclerophyll forest
Blue-winged Parrot	Wet and dry sclerophyll forest
Eastern Pygmy Possum	Wet sclerophyll forest
Fan-tailed Cuckoo	Wet and dry sclerophyll forest
Eastern Whipbird	Wet sclerophyll forest
Feathertail Glider	Wet and dry sclerophyll forest
Large-billed Scrubwren	Wet sclerophyll forest
Gang-gang Cockatoo	Wet and dry sclerophyll forest
Lewin's Honeyeater	Wet sclerophyll forest
Long-nosed Bandicoot	Wet sclerophyll forest
Mountain Brushtail Possum	Wet sclerophyll forest
Olive Whistler	Wet sclerophyll forest
Peregrine Falcon	Wet and dry sclerophyll forest
Pilot Bird	Wet sclerophyll forest
Satin Bowerbird	Wet sclerophyll forest
Superb Lyrebird	Wet sclerophyll forest
Swamp Wallaby	Dry sclerophyll forest
White's Thrush	Wet sclerophyll forest
Yellow-tailed Black Cockatoo	Wet and dry sclerophyll forest
Threatened locally in Dandenong Ranges National Park	
Broad-finned Galaxias	Streams
Common Wombat	Dry sclerophyll forest and woodland
Platypus	Streams
Southern Brown Bandicoot	Wet sclerophyll forest
Swamp Rat	Wet sclerophyll forest
Water Rat	Streams
Wedge-tailed Eagle	Wet and dry sclerophyll forest
White throated Nightjar	Dry sclerophyll forest

Yellow-bellied Glider *Petaurus australis*
The yellow-bellied glider is found in tall, mature eucalypt forests. They are active nocturnal animals moving through the canopy with the aid of a gliding membrane.

About the size of a small cat, it has long fluffy fur which varies from dark brown to grey on the back and creamy white to yellow on the under-surface.

Their diet consists of nectar, pollen, insects and sap obtained by biting into bark. This social animal lives in small groups consisting of a dominant adult male and up to five females and their young.

Eastern Pygmy Possum *Cercartetus nanus*
The eastern pygmy possum is a mouse sized grey-brown marsupial. It is generally nocturnal, becoming active shortly after dusk. Its small body size enables it to nest in small tree holes.

During the colder months it becomes torpid for periods of up to two weeks, thereby conserving energy and utilising fat resources stored in the tail.

Its diet consists mainly of nectar and pollen from banksias, eucalypts and bottlebrushes, soft fruits as well as insects such as spiders, beetles and grasshoppers.

Broad-toothed Rat *Mastacomys fuscus*
The broad-toothed rat derives its name from the size of its broad molar teeth. They have light to dark brown fur, a broad rounded head and a short tail.

The broad-toothed rat is found in alpine and sub-alpine heathland, eucalyptus woodlands and the dense understorey of wet sclerophyll forests. They prefer areas with high rainfall, cool summers, cold winters and thick understorey vegetation.

Predominantly nocturnal, they tend to spend the day in nests constructed of finely-shredded grass. Their diet consists of grasses and the leaves, seeds and bark of small shrubs.

Predation by foxes and feral cats, habitat loss, low reproductive rates and competition from other native rats are all believed to have contributed to the sparseness of its population in some parks.

Superb Lyrebird *Menura novaehollandiae*
The superb lyrebird is endemic to Australia and is renown for its lovely long tail feathers, the male's unique dancing display and the bird's ability for incredible mimicry of other bird calls and even machinery sounds. It is found in wet and dry sclerophyll forests preferring the older parts of these forests.

The lyrebird is about the size of a domestic fowl. The female is dark brown with a long brown tail. The male's body is similar except for its elaborate tail plumage which when extended gives the appearance of a lyre (musical instrument like a harp). The males do not attain their mature tail plumage until they are 6-8 years of age. The tail display is used to attract the female and to intimidate intruders to their territory.

Both sexes possess powerful legs, feet and claws necessary for the digging of mounds and nests and searching for food. The lyrebird's invertebrate diet includes worms, grubs, centipedes and beetles.

Almost flightless they can get to the upper branches of trees by undertaking a series of short upward flights from one branch to the next.

Breeding
Courtship starts in autumn and continues through to June. The male combines his song repertoire with a stunning visual display of dancing. As part of the performance he spreads his quivering tail over his head to completely envelope his body in an attempt to attract the female.

The female commences nest building in April-May and egg laying usually occurs in winter. The eggs hatch in early spring when food is more plentiful.

Nests are built on a solid platform and consist mainly of sticks. Nests are quite large, over 70cm high and 60cm wide. Nests are often constructed on the banks of creeks in treeferns or clumps of grass and occasionally in the branches of trees.

Females are generally 6-7 years old, with an established territory, before they start breeding. Typically only one grey-brown hen-sized egg is laid per year. Eggs take six weeks to hatch. The female usually incubates the egg throughout the night but leaves the nest during the day to feed. The male is not involved with nest building, incubation, breeding, care or feeding. The chick remains with the female through its first year and is fed by the female even when it is capable of foraging on its own.

At the beginning of the next breeding season the female introduces the fledgling to a new part of the forest, whilst she returns to her own territory to prepare for her next mating.

The birds take eight years to mature and have a lifespan of about twenty years.

Superb Lyrebird ©MT