

# **FACT SHEET**Flying-foxes and Microbats

**Grey-headed Flying-fox** 



Microbat
Greater broad-nosed bat
(Photo by Michael Pennay)



### **About Flying-foxes and Microbats**

In this Fact Sheet you will find information on the following:

- Flying-foxes and the Ku-ring-gai Flying-Fox Reserve
- Microbats
- Protecting bats
- Bats and disease

There are two types of bats living in and around Sydney – flying-foxes and microbats. All Australian bats are protected and play a vital role in our natural ecosystems.

**Flying-foxes** are large fruit-eating mammals that commonly migrate between various bushland camps on a seasonal basis. There are three species of flying-foxes in Sydney with the Grey-headed Flying-fox the most commonly seen.

**Microbats** are small, flying mammals that eat masses of flying insects, such as beetles, moths and mosquitoes. There are nineteen species of microbats in Sydney with most species roosting in tree hollows and some in caves.

#### Did you know?

#### Flying-foxes:

- are also known as fruit bats
- are Australia's largest bat
- are listed as vulnerable to extinction under environmental laws
- play an important role in pollinating native trees and dispersing their seed

#### Microbats:

- are so small that some may weigh less than a 10 cent coin and can fit in the palm of your hand
- most species roost in trees rather than caves and therefore rely on local forests for habitat
- hunt by making very high frequency 'calls' that humans can't hear

### **Grey-headed Flying-foxes**

Grey-headed Flying-foxes are large fruiteating mammals, with light grey fur on the head, dark grey fur on the body and a collar of rusty coloured fur. They have a wing span of about a metre and weigh up to a kilogram.

#### Where are they found?

Grey-headed Flying-foxes occupy forests and woodlands in the coastal lowlands, tablelands and slopes of southeast Australia from Bundaberg to Geelong. They are migratory bats that are primarily found in coastal areas. In winter they congregate in the northern part of their range and gradually disperse southward in other seasons. They are present continuously in coastal lowlands in the northern part of their range and in metropolitan areas such as Brisbane, Newcastle, Sydney and Melbourne where artificially diverse food occurs because of plantings.

### What do they eat?

Grey-headed Flying-foxes feed primarily on blossoms and fruit in canopy vegetation and supplement this diet with leaves. The majority of animals feed on nectar and pollen from eucalypts, melaleucas and banksias. Their diet includes over 100 species of native flowering trees and fleshy-fruited trees and vines. Their diet is now supplemented by fruit of introduced plants such as garden and orchard trees, street trees, introduced palms and some noxious weeds. Grey-headed Flying-foxes forage over extensive areas. One-way commutes of approximately 50 km have been recorded between camps and foraging areas, although commuting distances are more often less than 20 km.



**Grey-headed Flying-fox** 

#### Why are they important?

Flying-foxes play an important role in fertilising eucalypts and contribute to the health of forests and woodlands by carrying pollen and seeds over large areas. Their ability to move freely among habitat types allows them to transport material across fragmented, degraded and urban landscapes and thus they play an important role in sustaining plant and vegetation communities.

# Where can they be seen locally?

Locally in Gordon, there is a colony of Greyheaded Flying-foxes roosting in the **Ku-ring-gai Flying-fox Reserve**. This reserve is managed specifically to protect the flying-foxes as part of a conservation agreement between the NSW Conservation Minister and Ku-ring-gai Council. The **Ku-ring-gai Bat Conservation Society** Inc. provides assistance and advice to Council to support reserve management. Despite the existence of the reserve overall numbers have on average been declining over recent years.

During active times of year you can view the fly-out at dusk from Rosedale Road, Gordon as the flying-foxes leave in search of food.

#### **Microbats**

Microbats are small insect-eating flying mammals. There are around 80 different species of microbats in Australia, varying in weight from 3 grams to 150 grams and with wingspans up to 25cm.

#### Where are they found?

Most species of microbats roost during the day in tree hollows, under bark and in buildings. Four species roost primarily in caves and may also use structures such as tunnels and mines.

Little is currently known about distribution and the population numbers of most of Sydney's 19 microbat species.

### What do they eat?

Microbats eat vast numbers of flying insects including beetles, moths and mosquitoes. Around Sydney they source food along creek lines and in remaining bushland areas.

Microbats are well known for their capacity to hunt and find their way in the dark using 'echolocation'. They send out very high frequency sounds that humans can't hear and interpret the sound waves that bounce back from prey and nearby objects.

# Why are they important?

Microbats contribute to the control of insects by eating substantial numbers of insects each day. This is important for controlling many insect pests of crops and in some regions this may contribute to the control of insect-borne diseases such as malaria.

#### Where can they be seen locally?

A local microbat colony may be viewed at dusk at Little Blue Gum Creek walk in the Sir Phillip Game Reserve (Corner of Grosvenor Road and Lady Game Drive, Lindfield). Microbats may also be seen locally feeding on insects around sports field lights at night.



Gould's Wattled Bat (microbat) (Photo by Michael Pennay)

# **Protecting bats**

### Why are bats vulnerable?

Almost half of Australia's bat species are of some conservation concern and all bat species are protected. The effects of human settlement are the major threats identified to bat populations. Around Sydney these threats include:

- habitat clearing for residential and other development
- pollutants such as chemicals, herbicides and pesticides
- motor vehicle impact
- cat predation
- netting over fruit trees

#### What can you do to protect bats?

To help protect bats in our local area you can:

- keep cats indoors especially at night
- minimise use of herbicides and pesticides
- help conserve old growth forests
- build and install a roosting box
- if using netting to cover fruit trees ensure it has a very <u>fine mesh</u> to prevent wildlife becoming entangled
- become a member of and/or support the Ku-ring-gai Bat Conservation Society

#### Bats and health

#### Living near a Flying-fox colony

People sometimes have concerns about possible health risks of living near a bat colony. NSW Health note that 'living, playing or walking near flying fox roosting areas does not pose a public health risk unless one is bitten or scratched by a flying-fox.'

### What diseases can bats carry?

The diseases carried by bats that are of most concern in Australia are Australian Bat Lyssavirus and Hendra virus.

To prevent any potential infection:

- avoid handling bats (as this poses the risk of being scratched or bitten)
- avoid direct contact with any bat saliva
- use good hygiene practices when around horses – avoid coming in contact with body fluids from horses

It is also recommended to avoid direct contact with droppings from bats as this poses a small potential risk of gastrointestinal diseases.

If you find an injured or distressed flying fox or bat call your local wildlife rescue service such as WIRES on 1300 094 737 – do not handle the bat yourself.

There are no reports of infections with Hendra virus or Australian Bat Lyssavirus among people living close to flying-fox colonies or wildlife handlers working with flying-foxes. This suggests that living near a flying-fox colony does not pose a significant risk for infection with these viruses.

# What is Australian Bat Lyssavirus?

Australian Bat Lyssavirus (ABL) can potentially be carried by any species of bat and may be passed to humans through untreated bites or scratches from infected bats. There have been three fatalities in Australia from ABL but it is treatable by post-exposure vaccine. Anyone bitten or scratched by a bat should seek medical attention immediately.

#### What is Hendra virus?

Hendra virus is a virus that mainly infects large flying-foxes. Occasionally the virus can spread from flying-foxes to horses. Horses can then pass the virus on to humans (or other animals) that have close contact with the body fluids of the infected horse. The virus can be deadly to both humans and horses. A vaccine is now available to help reduce the risk of Hendra virus infection in horses. There is currently no vaccine available for humans.

# What if you are bitten or scratched by a bat?

If you are bitten or scratched by a bat NSW Health recommend you:

- immediately wash the wound with soap and water for at least five minutes to reduce the risk of infection
- apply an antiseptic with anti-virus action such as povidone-iodine, iodine tincture, aqueous iodine solution or alcohol (ethanol) after washing
- seek medical attention as soon as possible to care for the wound and to assess any risk of infection

#### **Source of Health Information:**

NSW Health and

NSW Department of Primary Industries



Flying-fox fly-out viewing evening at Rosedale Rd, Gordon

#### Want to learn more?

For more information click on the links below or search on these websites for 'bats' or 'flying-foxes':

#### **General information**

<u>Sydney Bats & Ku-ring-gai Bat Conservation</u> <u>Society Inc.</u>

**Australian Bat Society** 

Australian Museum

NSW Office of Environment & Heritage

Queensland EPA

Aus. Gov. Department of Environment

All about bats

**CSIRO** 

#### Bats and disease

NSW Department of Primary Industries

NSW Health

#### For Kids

Colouring -in sheets

**Activity sheets**