

# Flying fox (bat) management in the Northern Territory

## Flying Foxes in the Environment

Black Flying Foxes (*Pteropus alecto*) and Little Red Flying Foxes (*Pteropus scapulatus*) are two common species in the Northern Territory. Both species are present in other locations throughout Australia.

The Little Red Flying Fox forms very large colonies – in some cases, colonies have been reported to contain up to five hundred thousand animals! Black Flying Foxes, on the other hand, are the largest flying foxes (in terms of body size) in Australia, but the number of animals in each colony tends to be much smaller.

Flying foxes are very important pollinators and seed dispersers of many native plants including Eucalypts, figs, bush apples (*Syzygium* spp.), bush plums (*Terminalia* spp.), paperbarks, grevillas, and fruits of many palm species. The seeds of some plant species (particularly those with white and green fruits) may only be dispersed by flying foxes, meaning that these plants rely on flying foxes in order to successfully reproduce. It has been estimated that a single flying fox can disperse up to 60,000 seeds in a single night!

Flying foxes are also important for nutrient regeneration and nutrient cycling within the ecosystem. Not only do they provide large quantities of fertiliser to the system, but they create gaps in the canopy which enables other plants to compete more effectively.

As with other native wildlife in the Northern Territory, the Little Red Flying Fox and the Black Flying Fox are protected under section 43 of the *Territory Parks and Wildlife Conservation Act*. This means that people cannot interfere with (shoot, touch, feed, take, move, injure, manage) flying foxes without a permit.

## Feeding

Flying foxes are nocturnal foragers that primarily feed on blossoms, but they may scavenge for fruit, nectar, sap and occasionally the leaves of native plants. Eucalypts, tea-trees, grevilleas, figs and lilly pillis are their favoured food plants. However, they will also eat insects if blossoms are unavailable.

Flying foxes prefer to forage locally for food, with the majority of feeding occurring within 5-15 kilometres of their roosting site. However, they will travel up to 50km to feed if necessary.

## **Roosting**

Both the Little Red Flying Fox and the Black Flying Fox prefer to roost in dense shady vegetation that provides protection from predators and weather conditions. Within urban areas, the introduced African mahogany is perfect for them.

## **Movement patterns**

Flying fox colonies move according to variations in climate and the flowering and fruiting patterns of their preferred food plants. Flying foxes prefer to live in moist, warm habitats, including gullies in lowland rainforest, coastal stringy bark forests and mangroves, often beside a creek or water body.

## **Threats**

In Australia, flying fox population size and distribution has changed significantly since European settlement. Land clearing for forestry, mining, and agriculture has led to a loss of natural habitat and loss of regular food supply for flying foxes. Human infrastructure and interference such as barbed fencing and powerlines have also impacted on flying fox populations.

## **Interactions with people**

In areas occupied by humans, flying foxes take advantage of the reliable food supplies, moist habitats, and well lit conditions (flying foxes use eyesight and hearing to navigate). In urban areas, people consider flying foxes to be a nuisance because of their odour, noise, and droppings. Roosting activities can also cause considerable damage to the vegetation at roosting sites, particularly when camps are located within small patches of vegetation.

## **Flying fox management**

The Parks and Wildlife Service addresses issues related to flying fox roosts in townships, parks and other areas that fall within its jurisdiction.

To decrease the impact of flying foxes, Parks and Wildlife undertake various activities, including:

- Encouraging residents to prune or lop favoured roosting trees like the African mahogany.
- Encouraging tree lopping and pruning of preferred flying fox roosting sites on public land around Katherine.
- Monitoring the habits and movement of little red flying foxes.

- Educating the public on how to reduce potential flying fox roosts around town, for example, alternative garden plants.
- Planting alternative plant species which are of lesser attraction to flying foxes you may eliminate the problem or at least decrease the duration or frequency of visits from flying foxes.
- Studying the behaviour of flying foxes around high voltage structures fitted with various power-line protection devices.
- Collecting and caring for flying foxes during relocation and pruning.

## **Flying fox diseases**

### **Hendra Virus**

Flying foxes are a natural host for Hendra virus. Four species of Australian flying foxes (Grey-Headed Flying Fox, Black Flying Fox, Little Red Flying Fox and Spectacled Flying Fox) carry the virus but do not show symptoms of disease. This means that it is often difficult to identify the presence of the disease, particularly if it is isolated to flying fox colonies.

On very rare occasions, Hendra virus may be spread to horses through faeces, urine or saliva, which causes respiratory and neurological disease. This can be fatal.

Hendra virus may subsequently also be transmitted to people through very close contact with secretions or body fluids of infected horses. There is no evidence of spread between flying foxes and humans or human to human spread.

### **Australian Bat Lyssavirus (ABL)**

ABL has been identified in several species of flying foxes, including the Little Red Flying Fox and the Black Flying Fox.

The virus can be transmitted from flying fox saliva to humans via bites and scratches. ABL is not spread in flying fox urine, blood or faeces and cannot survive outside of the animal's body for more than a few hours. ABL is not thought to live long in dead flying-foxes.

If you are scratched or bitten by a flying fox, wash the wound thoroughly with soap under running water. Cover the wound and seek medical advice at your nearest hospital or clinic immediately.

Fruit soiled by flying fox urine or faeces should be washed before consumption.

For more information contact Disease Control on 8973 9049.

### **Do not handle flying-foxes**

Flying foxes are difficult to handle and only people previously vaccinated and trained in the care and rehabilitation of these animals should do so.

If you find a sick or injured flying fox contact the Parks and Wildlife Service on 8973 8888 or the Wildlife Rescue Service on 0407 934 252.

### **What members of the community can do**

If you have problems with flying foxes roosting in your yard, there are a number of things that you can try to reduce these problems:

- Do not handle flying foxes
- Remove tall trees that may be selected by flying foxes as roosting sites.
- Preventing disturbances near flying fox roosting sites and limiting the use of loud machinery such as chainsaws and lawn mowers can reduce the noise that flying foxes make when they are disturbed.
- Prune trees to reduce the protection offered to flying foxes. Since flying foxes will select cool and shaded trees, pruned trees are less attractive.
- Reduce the availability of fruit by tying bags around developing fruit on the trees and removing excess fruit from trees.
- To prevent damage caused by bat droppings, cover vehicles with a tarpaulin.
- In the initial stages of flying foxes moving into your backyard, air horns or other loud noises (e.g. banging on pots) may encourage flying foxes to move to another area.
- Flying foxes are a protected species in the Northern Territory. For this reason, it is important that members of the public do not interfere with these animals without an appropriate permit.

### **What people who work with horses can do**

- Place feed and water containers under cover if possible.
- Do not place feed and water containers under trees, especially when flying foxes are present.
- Do not use feed that might be attractive to flying foxes.
- Fruit/vegetables or anything sweet may attract flying foxes.
- If possible, remove horses from paddocks where flowering trees have resulted in a temporary surge in flying fox numbers. Return the horses only after the trees have stopped flowering.
- Temporarily remove your horses during times of peak flying fox activity (usually at dusk and during the night).

### **For more information, contact:**

Parks and Wildlife

Department of Natural Resources, Environment, The Arts and Sport

PO Box 496, PALMERSTON NT 0831

**Tel** 08 8995 5008

**Fax** 08 8995 5099

**Email** [anne.walters@nt.gov.au](mailto:anne.walters@nt.gov.au)