



# Relocating Flying-foxes

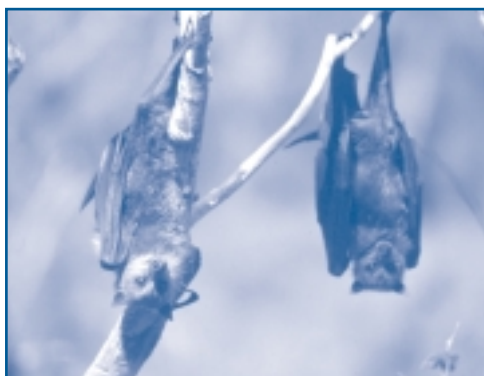
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## Grey-headed Flying-foxes

Grey-headed Flying-foxes, sometimes called "fruit bats", are large bats that are native to Australia. Flying-foxes are intelligent, social animals that roost together at a "camp" during the day, but feed individually or in small groups at night.

Due to declining numbers caused by large-scale habitat loss, the Grey-headed Flying-fox is listed as a nationally threatened species. They play an important role in regenerating our native forests by pollinating and dispersing seeds.

## The issue

Flying-foxes have been coming to Melbourne for over 100 years. Since 1981, they have roosted in the Royal Botanic Gardens. At first, roosting was seasonal but now animals remain year-round. Over time, the number of flying-foxes roosting in the Gardens has risen to the point where 28,500 were present in summer of this year.

As the number of roosting flying-foxes increased, so too did their impact on the vegetation in the Gardens. The concentration of a large number of animals into a small area resulted in varying levels of damage to plantings. The impact of the flying-foxes on the Gardens is not sustainable and threatens the future of some of the plantings which can not be easily replaced.

## The trial

The Department of Sustainability and Environment, Zoos Victoria, Parks Victoria and the Royal Botanic Gardens are currently implementing a world-first, three-year trial to relocate Melbourne's colony of Grey-headed Flying-foxes from the Royal Botanic Gardens to a new roost site, Horseshoe Bend, on the Yarra River at Ivanhoe.

## Attracting flying-foxes to the new site

A detailed study identified Horseshoe Bend as the most appropriate location for an alternative flying-fox roost site in Melbourne. The project aims to disperse flying-foxes from the Botanic Gardens and attract them to the new site by using captive flying-foxes, improving the habitat and using a number of visual and acoustic attractants to provide familiar sights, smells and sounds.

Seventy captive flying-foxes are housed in a large enclosure, free feed is put out for wild flying-foxes, over 1,500 seedling and ferns have been planted at the site, an irrigation system has been installed to maintain a moist, humid environment, leaf litter from the Royal Botanical Gardens has been introduced, calls are played to attract wild flying-foxes and 800 metres of artificial roosts and almost 200 decoy flying-foxes have been installed.

To date, the response of wild flying-foxes has been encouraging with up to several hundred animals visiting the site in any one night and small groups and individual flying-foxes have roosted there intermittently. Some of the flying-foxes released from the enclosures have shown attachment to the site by roosting nearby and returning at night to feed.

## Relocating flying-foxes

On 11 March 2003, a dispersal program began in the Royal Botanic Gardens in an effort to relocate the flying-foxes to the preferred site in Ivanhoe. A number of techniques were used to encourage the flying-foxes to leave the Gardens, mostly relying on noise and movement. Dispersal techniques have been trialed and refined and we now know what does and does not work and for how long methods remain effective.

The most successful method of dispersal is the use of a variety of recorded sounds that have been scientifically tested and found to deter the flying-foxes. The sounds are played through large speakers mounted in the back of small, four-wheeled buggies, fitted with spotlights and metal banging plates. The sound is funnelled upwards into the tree canopy, disturbing the bats and causing them to fly away.

The dispersal methods do not injure or have lasting physical effects on the flying-foxes. The previous dispersal effort resulted in no known deaths or injuries to flying-foxes and there was no increase in the number of animals received at wildlife shelters. Disturbance is also timed to avoid periods of vulnerability, such as late pregnancy and when young are dependent on mothers.

## Progress of dispersal efforts

After two weeks of effort, the entire flying-fox colony relocated from the Royal Botanic Gardens, the first time in almost 20 years that there have been no flying-foxes roosting there. Restoration efforts have begun in the Gardens and the most severely affected area, Fern Gully, is starting to show the first signs of recovery. A maintenance dispersal program is now in place to prevent the flying-foxes from returning in large numbers.

The dispersed colony has divided into two, with some animals relocating sixty kilometres away to parkland in Geelong, where the presence of the colony has been well received by local residents and there is no significant conflict with existing human use and values. It is hoped that a colony will remain in Geelong's Eastern Park.

The remainder of the former Royal Botanic Gardens colony has moved between a number of inner-city parks in Melbourne, including the Fitzroy Gardens where they currently reside. Because the longer-term management objective is to relocate the flying-foxes to the Yarra River, another dispersal effort will be undertaken for up to thirty days.

## The next dispersal effort

Between the evening of Wednesday 11 June 2003 and Friday 11 July 2003 (inclusive), the Department of Sustainability and Environment, with assistance from the Royal Botanic Gardens, Zoos Victoria and Parks Victoria, will be conducting a further dispersal program aimed at relocating the roosting Grey-headed Flying-foxes from the Fitzroy Gardens and to the Yarra River, only 1.5 kilometres away. Dispersal activity will occur simultaneously across a number of inner-city parks and gardens to discourage the flying-foxes from resettling in the general area.

The same noise deterrents as those used during the previous dispersal effort will be used, including starters' pistols, recorded noises, banging of metal objects and, potentially, 'Bird-frite', which sounds like a firework.

These sounds will be used in the early morning and at dusk for the duration of the one-month dispersal program and will play an important role in encouraging the flying-foxes to relocate to an alternative roost site.

It is not anticipated that the dispersal program will have any significant impact on local residents, but, in the event that there is some spread of sound to nearby areas, we ask for your understanding.

## Living near flying-foxes

In Melbourne, flying-foxes do not normally roost in backyards or neighbourhood parks or gardens. However, if a flying-fox decides to roost in a yard during the dispersal program, it should not be disturbed, as it may move into an adjoining property. Residential yards don't make comfortable flying-fox roost sites and it's likely that it will leave that night or after several days.

There is no need to notify the Department about the night-time presence of flying-foxes in Melbourne or day-time roosting in any of the following inner-city parks: Royal Botanic Gardens; Fitzroy Gardens; Treasury Gardens; Powlett Reserve; Darling Square; Shrine; the Domain Gardens; Queen Victoria Gardens; Alexandra Gardens; Yarra Park (MCG car park); Fawkner Park; Carlton Gardens; Royal Park.

However, if you see a group of greater than ten flying-foxes in any other area, particularly along the Yarra River, please contact the Department of Sustainability and Environment Customer Service Centre on 136 186.

## Flying-foxes – important information

Flying-foxes can carry the Australian Bat Lyssavirus (ABL), which can be transmitted in bat saliva if bitten or scratched. There is little or no danger from flying-foxes if they are observed from a distance and not handled. There have been no reports of related illness in Victoria. Contact with flying-foxes should be avoided to minimise exposure to ABL.

If bitten or scratched by a bat, the area must be washed with soap and water for at least five minutes. A medical practitioner should be consulted immediately for advice and possible immunisation.

## Further information

For further information about relocating Melbourne's flying-foxes or flying-foxes in general, contact the Department of Sustainability and Environment Customer Service Centre on 136 186 or visit the Department's website:

<http://www.nre.vic.gov.au>