

Flying-foxes in Melbourne

Photo: Michael Pennay

Did you know that Melbourne is home to as many as 40,000 Grey-headed Flying-foxes (*Pteropus poliocephalus*) in one large "camp" or colony? Flying-foxes, also known as fruit bats, are an important part of Melbourne's ecosystem, even though they have only recently moved in!

The history of flying-foxes in Melbourne

The first records of Grey-headed Flying-foxes in Melbourne are from 1884, and until the early 1980s they were only occasional visitors to Melbourne, usually spending the summer months in Victoria and returning northwards to warmer climes during the Melbourne winter. In 1986, 10 – 15 individuals stayed in The Royal Botanic Gardens Melbourne over winter, and the first permanent colony in Melbourne was established. The size of the colony quickly grew, with about 20,000 – 30,000 bats resident in the Botanic Gardens by 2003.

Quick facts about Grey-headed Flying-foxes

- They are the second largest species of bat in Australia – weighing up to 1.1 kg with a wing-span of over 1 m.
- They feed on nectar, fruit and pollen from a wide range of plant species.
- Grey-headed Flying-foxes live along the east coast of Australia, from Maryborough in Queensland to Melbourne in Victoria. In 2003 a permanent colony formed in Geelong and in 2010 a colony formed in Adelaide. If the colony in Adelaide persists, it will be the most westerly colony of Grey-headed Flying-foxes in Australia.
- Despite their large numbers in some localised areas, they are listed as vulnerable to extinction due to loss of habitat and being killed by humans.

Fun Fact!

Research from Sydney has shown that male Grey-headed Flying-foxes often return to the same branch in the colony year after year to establish a territory



Grey-headed Flying-fox
Photo: Nick Edards

Why have flying-foxes started living in Melbourne?

The establishment and growth of the Melbourne colony is probably due to a number of factors.

- As the city has grown and developed, Melbourne's temperature has risen at least 1.13°C over the past 20 years, with fewer frosts (this is called the urban heat island effect). Flying-foxes are a sub-tropical species, so the warmer temperatures in recent years is more suited for them.
- Although Grey-headed Flying-foxes consume nectar, fruit and pollen from a wide range of plant species across Australia, prior to European settlement the Melbourne region had only 13 species of plants that are eaten by Grey-headed Flying-foxes. With extensive tree planting, especially in the last 50 years, there are now an additional 87 species of trees and shrubs that provide the bats with a year-round smorgasboard of food.
- Regular watering of plants by residents also ensures a reliable source of food for flying-foxes, especially during drought conditions.
- Habitat loss in other areas of their geographic range may also have contributed to their use of urban and suburban areas.
- Flying-foxes need to drink water on hot days, so camps that are close to a water source (such as the Yarra River) are more likely to thrive. They drink by dipping their belly in the water while flying (see overleaf) and lick the water from their fur.

Looking for more information about bats? Please see our fact sheets on a range of issues, available for download from: www.ausbats.org.au

We also recommend: www.dse.vic.gov.au/plants-and-animals/flying-foxes-home-page



Photo: Micheal Pennay

Shifting house – how do you move 20,000 flying-foxes across the city?

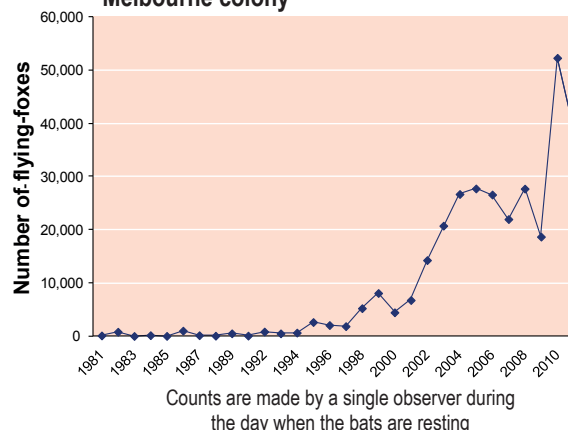
Many Melbourne residents enjoying the moonlight cinema in the late 1990s and early 2000s may recall the spectacle of the flying-foxes leaving the camp at the Botanic Gardens. However, the large number of bats roosting there caused significant damage to the Garden's heritage-listed trees.

A 3-year project was initiated with the collaboration of many local and state wildlife groups, to relocate the colony to the banks of the Yarra River at Yarra Bend Park in Kew. Biologists used recorded and computer-generated loud noises at dawn and dusk to discourage the bats from roosting in inappropriate places. The actual relocation took almost 6 months during the winter of 2003 and the colony has remained there ever since.

The Melbourne flying-fox colony now

- In most years, the colony contains between 20,000 – 30,000 bats in summer and 5,000 – 10,000 in winter.
- The number of flying-foxes in Melbourne varies from year to year. Flying-foxes migrate up and down the east coast of Australia in response to the availability of food, the flowering patterns of trees, and the climatic conditions (both local climate and large-scale factors operating along the east coast).
- The number of Grey-headed Flying-foxes in Victoria almost quadrupled in 2010, with twice as many in Melbourne (60,000) and Geelong (30,000) and new colonies forming in Bendigo, Ballarat and the Otways, as well as Adelaide. The Bendigo camp has remained occupied, with about 500 as of March 2012.
- Mating occurs in March-April, and pups are born in September-November. Each year up to 90% of the adult females raise a pup, which they nurse for about six months.
- Natural mortality rates within the camp are usually low. However, when temperatures exceed about 40°C (with low humidity) for a few consecutive days, hundreds of flying-foxes may die. On Black Saturday (7th February 2009), about 5,000 flying-foxes died at Yarra Bend.
- The camps at Yarra Bend and Geelong are being managed to ensure they provide roosting habitat into the future. Large numbers of bats roosting in the same location causes damage (and potential death) to trees, so extensive tree planting programs at both camps are in place to ensure roosting habitat into perpetuity.

Number of flying-foxes roosting in the Melbourne colony



Many flying-foxes die every year due to electrocution on powerlines, collision with vehicles, entanglement with barbed-wire fencing or fruit tree netting.

If you net your backyard fruit trees, flying-foxes are less likely to become entangled if the netting is spread tautly over a frame rather than thrown loosely over the tree (as shown right). Also avoid using black and/or mono-filament types of netting.



Visit our flying-foxes!

The Melbourne colony of flying-foxes is located in Yarra Bend Park, which also features a range of park uses. New walking trails and upgraded visitor facilities have been provided at Bellbird Picnic Area (off Yarra Boulevard – Melways Map 2D, K6) so that visitors can enjoy a close view of the flying-foxes without disturbing them. Visitors can also view the nightly fly-out spectacle as up to 40,000 bats leave the colony at dusk. Volunteers can join in the monthly fly-out count and help monitor the number of bats in the camp.



Photo: Nick Edards