



Nature Conservation Council

The voice for nature in NSW

FLYING-FOX POLICY 2017

The Nature Conservation Council's Flying-fox Policy was updated at its October 2017 Annual Conference to take into account recent research and improvements in some NSW Government policies and processes.

Further progress is needed, however, in aspects such as protection and restoration of foraging habitat and camps, population monitoring and community education, before flying-fox species can be considered safe from population decline.

The revised policy highlights the importance of protecting foraging habitat for nomadic nectivores, including flying-foxes.

POLICY

1. The Nature Conservation Council of NSW (NCC) recognises that mobile pollinators such as flying-foxes and birds provide essential ecosystem services to native forests, woodlands and heathlands in NSW.¹

2. Conservation and restoration of foraging habitat

2.1 NCC recognises that populations of flying-foxes cannot be conserved in protected areas alone.

2.2 NCC calls on the NSW Government to arrest any further loss of native vegetation especially those species and communities which support mobile pollinators.

2.3 NCC recognises the urgent need to prioritise the conservation and restoration of winter and spring flowering species to conserve mobile pollinators.

1. See Appendix 1

- 2.4 NCC strongly supports the cessation of native timber extraction from NSW State Forests, which is contributing to loss of flying-fox foraging habitat and because it is heavily subsidised.

3. Flying-fox camps

- 3.1 NCC strongly objects to the disturbance and dispersal of flying-fox camps on the grounds that the animals usually return to that site or move to a location nearby, because these sites provide access to food resources.
- 3.2 NCC supports the preparation of flying-fox camp management plans, provided the objective of the plan is to restore and increase the area of camp habitat to cater for fluctuations in numbers of flying-foxes and to ameliorate impacts on people where possible.
- 3.3 NCC urges that land adjacent to flying-fox camps is not sold, subdivided or developed for residential areas, schools or used for active sports, concerts, etc.
- 3.4 NCC supports the retention of buffer zones surrounding each flying-fox camp to avoid conflict between people and flying-foxes which is detrimental to communities, local councils and flying-foxes. Where the option still exists, limitations should be placed on developments that can occur within approximately 300 metres of flying-fox camps.
- 3.5 NCC recognises that a flying-fox camp can be noisy, smelly and messy for people living or working close by, and recommends that assistance be made available to residents impacted by their proximity to a flying-fox camp in the form of partial grants for double glazing of windows, insulation to ameliorate noise impacts, and assistance for coping with flying-fox droppings in the form of car covers, sails over outdoor living areas, and for water pressure cleaning of pavements.
- 3.6 NCC recommends that both the NSW Government and Local Governments contribute to this approach to reduce conflict between people and flying-foxes.

(**Note:** partial subsidies to orchardists for installing netting have reduced the killing of flying-foxes).

4. Shooting for crop protection

NCC calls on the NSW Government to end all killing of flying-foxes in orchards, because there is no longer justification for issuing licences to shoot flying-foxes for orchard protection since orchardists had the opportunity to obtain subsidies to assist in the installation of exclusion netting.²

² Appendix 2 summarises the progress in reducing shooting in orchards since the NSW Government provided partial subsidies for orchardists to install exclusion netting.

5. Conservation status, monitoring, and recovery

- 5.1 NCC supports the listing of the grey-headed flying-fox as a threatened species in NSW and by the Commonwealth, because the major threat of loss of foraging habitat continues.
- 5.2 **Population Monitoring**
NCC supports the ongoing monitoring of flying-fox populations, especially the grey-headed flying-fox.
- 5.3 NCC supports research to improve monitoring methodology and the continuation of public reporting on the methods and results.
- 5.4 **Population Recovery**
NCC calls on the Commonwealth Government and all 'range' State Governments to adopt and implement the Grey-headed Flying-fox Recovery Plan. This recovery plan was first drafted in 2006. A subsequent version was put on public exhibition in 2016.

6. Community education

- 6.1 NCC calls on the NSW Government to continue to provide advice and information about flying-foxes, other mobile pollinators and their habitat, which is scientifically based so that people can improve their understanding and appreciation of these native animals.
- 6.2 Information on flying-foxes provided on the Office of Environment and Heritage website has considerably improved in recent years, however, other avenues are needed to reach the wider community.
- 6.3 NCC recognises that health risks from flying-foxes are very low, however, public education must continue to remind people of the potential risks of Australian Bat Lyssavirus and Hendra Virus, how they are transmitted and how to avoid transmission.

7. Other threats to flying-foxes

- 7.1 **Climate change**
NCC strongly supports action to avoid dangerous climate change.
- 7.2 Flying-foxes suffer heat stress and death when air temperatures exceed 40⁰C, particularly when high temperatures occur with low humidity. Rates of mortality increase rapidly at temperatures above 43.5⁰C. The number of days per year of high temperatures is predicted to increase. As well as direct mortality, climate change

will detrimentally impact the availability of the flowering and nectar production of diet plants for flying-foxes and other mobile pollinators.

7.2 **Electrocutions**

NCC supports the avoidance of electrocution of flying-foxes by increasing the spacing between electrical cables when crosspieces are replaced, and the installation of insulated bundled cables near food trees.

7.3 **Entanglement in backyard netting**

NCC supports the use of wildlife friendly netting to avoid the injury and death of flying-foxes.

7.4 **Entanglement in barbed wire**

NCC supports the use of plain wire for the top strand of fences to avoid the injury or death of flying-foxes from entanglement in barbed wire.

SOURCES:

Descriptions of flying-fox species

<http://www.environment.nsw.gov.au/animals/flyingfoxes.htm>

Planting to conserve threatened nomadic pollinators in NSW

<http://www.environment.nsw.gov.au/research-and-publications/publications-search/planting-to-serve-threatened-nomadic-pollinators-in-nsw>

This document includes a comprehensive list of references on research.

Native forest logging

R. Campbell & R. McKeown (2016) *Money Doesn't Grow on Trees*, the financial and economic losses of native forestry in NSW published by the Australia Institute.

Draft Recovery Plan for the Grey-headed Flying-fox

<http://www.environment.gov.au/biodiversity/threatened/recovery-plans/comment/draft-recovery-plan-grey-headed-flying-fox>

NSW Flying-fox Camp Management Policy

<http://www.environment.nsw.gov.au/threatenedspecies/flyingfoxcampol.htm>

APPENDIX 1

Extracts from the Summary in *Planting to Conserve Threatened Nomadic Pollinators in NSW*, available at: <http://www.environment.nsw.gov.au/research-and-publications/publications-search/planting-to-protect-threatened-nomadic-pollinators-in-nsw>

Birds and mammals that feed primarily on nectar, listed as threatened in NSW:

Scientific name	Common name
Birds	
<i>Anthochaera phrygia</i>	Regent Honeyeater
<i>Certhionyx variegatus</i>	Pied Honeyeater
<i>Gavicalis fascicularis</i>	Mangrove Honeyeater
<i>Lichenostomus cratitius</i>	Purple-gaped Honeyeater
<i>Melithreptus gularis gularis</i>	Black-chinned Honeyeater
<i>Glossopsitta porphyrocephala</i>	Purple-crowned Lorikeet
<i>G. pusilla</i>	Little Lorikeet
<i>Lathamus discolor</i>	Swift Parrot
Mammals	
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox
<i>Syconycteris australis</i>	Common Blossom Bat
<i>Cercartetus nanus</i>	Eastern Pygmy Possum
<i>Petaurus australis</i>	Yellow-bellied Glider
<i>Petaurus norfolcensis</i>	Squirrel Glider
<i>Petaurus norfolcensis</i>	Squirrel Glider (Wagga Wagga)
<i>Petaurus norfolcensis</i>	Squirrel Glider (Barrenjoey)

“Plant-pollinator mutualisms are fundamental to natural and agricultural systems. In Australia several species of native plants produce large volumes of nectar and pollen, with an unusually high proportion of plants pollinated by vertebrates.

Highly mobile vertebrate pollinators (birds and bats) disperse pollen over large areas during feeding bouts, promoting out-crossing and increasing genetic variation in the plants and plant populations they visit. This genetic variation builds ecological resilience in ecosystems, increasing their capacity to withstand or adapt to pressures from anthropogenic change. Long-distance pollen flow is particularly important in highly fragmented landscapes. It may also provide a mechanism to help long-lived eucalypts withstand the challenges of climate change.

The times and locations of flowering in eucalypts are relatively unpredictable. Nectar-feeding birds and bats move nomadically over long distances to maintain continuous access to productive habitat. These nomadic animals are vulnerable to loss of relatively small habitat areas – particularly those that provide resources at key times. These habitats cannot be conserved within general conservation programs as, for example, networks of protected areas: instead, they require sensitive management, including the restoration of areas outside reserve.”

APPENDIX 2

The grey-headed flying-fox was listed in 2001 as a threatened species under the NSW Threatened Species Act and by the Commonwealth. Orchardists were required to obtain licences to cull flying-foxes and to report the species and number killed annually:

<http://www.environment.nsw.gov.au/animals/flyingfoxes.htm>

An independent review of licensing policy for the legal harm (killing) of flying-foxes by the NSW Flying-fox Licensing Review Panel was released in 2009. It concluded that:

- the animal welfare issues arising from shooting flying-foxes are ethically and legally unacceptable;
- shooting is ineffective at reducing crop damage when large numbers of flying-foxes visit orchards. Full exclusion netting provides the most effective protection against flying-fox damage; and
- the NSW fruit-growing industry could rely solely on exclusion netting as the means of flying-fox crop damage mitigation.

Since 2011, the NSW Government, through the NSW Environmental Trust has provided grants to assist orchardists to protect their crops with netting and to phase out shooting. 708 hectares of netting (421.6 ha canopy type and 286.5 'throw over' type with a mesh aperture less than 5mm, which is required to be secured to prevent entanglement) have been installed through the scheme to July 31 2016. The total investment was \$7.1 million. Receipt of a subsidy precludes orchardists from applying for a culling licence at any time in the future.

Since 2015 licences to shoot flying-foxes as a fruit crop protection measure have only been issued in **special circumstances**. Some small to medium-sized enterprises which had been issued licences between 2001 and June 2014, are still being issued licences, with variations.

During the 2014-15 and 2015-16 fruit growing seasons, 6 licences were issued which authorised the culling of 872 grey-headed flying-fox. No other species of flying-fox were licensed for harm. The majority of licences for 2015-16 (three licences with 16 variations, or 90%), were issued in the Hawkesbury Area. Such killing of a threatened species is unacceptable on ecological grounds. Shot guns are used to shoot flying-foxes which results in slow deaths and death of young when a female is killed. The cruelty which occurs needs to stop.

Conditions of **special circumstances** are available at:

<http://www.environment.nsw.gov.au/wildlifelicences/s120licence.htm>

Annual Report Commercial Crop Damage by Flying-foxes Licence Summary 2014-15 and 2015-16 Fruit Growing Seasons: <http://www.environment.nsw.gov.au/resources/nature/flying-foxes-commercial-crop-damage-annual-report-170085.pdf>

APPENDIX 3

Population monitoring of the grey-headed flying-fox has been undertaken across its range (Queensland, NSW, Victoria and South Australia) since February 2013. The National Flying-fox Monitoring Program reports are available at <http://www.environment.gov.au/node/16393>

Concerns have been expressed by many scientists about the methodology being used to calculate the population of grey-headed flying-fox from the data collected at camps.

The November 2016 estimate for the total grey-headed flying-fox population was 447,000 animals and these were recorded from 134 active camps across the species range. The majority of the animals were in NSW (71%), with 22% in Qld, and 5% in Vic while SA and ACT had <1%. No massive camps (>50,000 grey-headed flying-foxes) were recorded during this survey, however several camps of more than 20,000 animals were recorded in the Northern Rivers of NSW and the Sydney region. Overall the average size of the occupied grey-headed flying-foxes camps was 3,700 animals, quite a lot smaller than the camp sizes encountered in recent surveys.