



AUSTRALASIAN BAT SOCIETY, INC.

ABN: 75 120 155 626

POSITION STATEMENT SHOOTING AND FLYING-FOXES

Background

The shooting of flying-foxes has been carried out for many decades, particularly as a means of protecting fruit crops and for dispersing flying-fox camps that are regarded as problematic by some sectors of the community. Recently the Queensland State Government has reintroduced legislation that allows farmers to apply for damage mitigation permits to shoot flying-foxes in commercial orchards. The New South Wales State Government also allows shooting of flying-foxes under a permit system for similar purposes; however, that State has legislated to phase out shooting by 1 July 2014, except under special circumstances.

Shooting of flying-foxes in orchards has been shown to be an ineffective method for reducing flying-fox impacts on commercial fruit crops. The only proven and effective method for protection of orchards from flying-foxes is exclusion netting.¹

The shooting of flying-foxes is inhumane because it is almost always done at night, when visibility is poor and with shotguns, which frequently do not result in a clean kill. When a flying-fox is shot with shotgun pellets, the injuries are random and do not necessarily cause instant death. Scientific research² has shown that a significant majority of flying-foxes shot this way can take up to four days to die (see Figure 1).

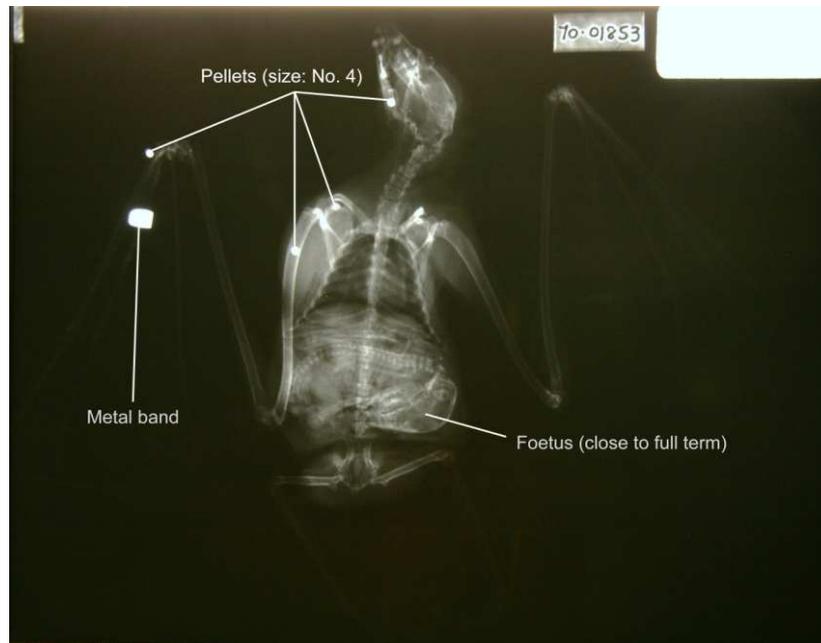
Flying-foxes often do not drop from trees when debilitated from being shot and wounded. This is because the structure of the leg is such that when hanging on a branch a set of tendons in the leg locks the foot, a function developed in the process of evolving the ability to sleep in trees without falling³. Hence, when mortally wounded, a flying-fox is likely to be locked onto a branch some distance above the ground, where it will be difficult to access for the final despatch.

¹ NSW Flying-fox Licensing Review Panel: Report to Landscapes and Ecosystems Conservation Branch, NSW Department of Environment and Climate Change, May 10, 2009.

² Deaths and injuries to Grey-headed Flying-foxes, *Pteropus poliocephalus* shot at an orchard near Sydney, New South Wales. Authors: A. Divljan, K. Parry-Jones & P. Eby. *Australian Zoologist* Vol. 35, No. 3.

³ *Flying Foxes: fruit and blossom bats of Australia* Pp. 28-29. Authors: L. Hall and G. Richards. Published by UNSW Press, Sydney, 2000.

Figure 1: Veterinary x-ray of a flying-fox that eventually died four days after being shot in an orchard near Sydney. Three points on the wing had been broken, rendering flight impossible; and the left jaw had been severed by a pellet. The metal band indicates that it was once a research animal.



Another significant issue arises in relation to the timing of shooting to control flying-foxes at orchards. In many areas where shooting permits will be applied for, the ripening of orchard fruit coincides with the spring-summer flying-fox breeding season. This means that many of the females that are shot will be pregnant or have milk-dependent young at the roost (camp), which will subsequently starve to death. Research has found that the deaths of these young results in a 44% increase in the number of animals actually killed from orchard shooting during the breeding season⁴.

While there are Codes of Practice for the shooting of flying-foxes^{5,6}, which must be acknowledged and followed by permit applicants, the issuing authorities have only limited means to ensure adherence to those Codes. Furthermore, other than reading and acknowledging the Code of Practice, applicants require no further endorsement or approval for the ethical treatment of the animals. This is in stark contrast to the strict Animal Ethics guidelines and approval systems that must be followed by other people, such as scientists and animal carers, who undertake research and rehabilitation on native wildlife species.

⁴ Deaths and injuries to Grey-headed Flying-foxes, *Pteropus poliocephalus* shot at an orchard near Sydney, New South Wales. Authors: A. Divljan, K. Parry-Jones & P. Eby. *Australian Zoologist* Vol. 35, No. 3.

⁵ *Code of Practice — Ecologically sustainable lethal take of flying-foxes for crop protection*. Department of Environment and Heritage Protection, Brisbane, August 2012.

⁶ *Standard operating procedure for the shooting of flying-foxes*. Office of Environment and Heritage, Sydney, November 2011.

ABS Position on shooting of flying-foxes

The Australasian Bat Society understands the frustrations of primary producers, but opposes any damage mitigation measures that may be inhumane or which could be deleterious to flying-fox populations.

We acknowledge that managing flying-foxes in orchards is a difficult dilemma for people who depend on primary production for their income, however, the ABS strongly objects to the shooting of flying-foxes in any situation. We reiterate the following key points:

- two of the four species subject to shooting are listed as threatened species under both State and Federal conservation laws;
- the shooting of flying-foxes is generally ineffective in reducing their impact on commercial orchards;
- the shooting of flying-foxes on crops is inhumane because the likelihood of a clean, instantaneous kill is low and the majority of animals that are shot experience a slow death;
- the shooting of flying-foxes during the breeding season, when crop damage mitigation peaks, is inhumane because if a female is killed or injured so that she cannot return to the flying-fox camp, her single young, which depends on her milk, will die slowly over a number of days; and
- all flying-fox species have been shown to play a keystone role in maintaining our natural environment.

For these reasons, the ABS strongly objects to the shooting of flying-foxes in any situation.

The ABS does, however, recognise the complexity of this human-wildlife conflict and recommends the following research and management actions to improve the protection of both fruit crops and flying-foxes:

- The culling of any native species by shooting should be conducted under strict protocols, which require an instant and painless kill of each target animal. Where the relevant authorities deem it necessary to provide permits for the shooting of flying-foxes, the ABS strongly recommends that the animals be despatched instantaneously by a single shot to the head.
- If used incorrectly or on mobile animals (e.g. flying-foxes in flight), shotguns frequently do not cause instant death, rather producing painful injuries and sometimes prolonged death if the animals cannot be found and humanely killed. The ABS strongly recommends strict adherence to and administration of the existing Codes of Practice and Standard Operating Procedures for shooting of flying-foxes.
- The ABS recommends that if shooting licences are issued for culling during the breeding season, the numbers permitted to be shot include the loss of young *in utero* or those that are lactation-dependent in a maternity camp. On the basis of available data, if a permit is approved for a kill of 50 animals, then only 28 should be allowed to be shot, to account for the loss of *in utero* or dependent young.
- The ABS supports the use of humane crop protection methods, such as exclusion netting, to address the issue of crop damage from both flying-foxes and birds. In the long term, full enclosure of orchards with appropriate netting provides a more effective, economical and humane alternative to shooting.
- The ABS understands that the process of change to non-lethal methods for reducing crop damage from flying-foxes may be slow, but supports legislative change to improve the adoption of non-lethal measures and the complete phase out of shooting.
- The ABS recommends and supports government and/or industry funded research into developing and refining non-lethal control measures that foster protection of both flying-foxes and rural industries.

Flying-foxes and the Australian environment

The ABS recognises that flying-foxes, in some circumstances, cause economic losses to the Australian horticulture industry through consumption and spoiling of fruit in commercial orchards. We also believe the ecosystem values that flying-foxes provide to the Australian environment have not been adequately represented in the public debate on flying-fox management.

As such the ABS would like to make the following points:

- Flying-foxes play a keystone role in maintaining biodiversity and structure in natural vegetation communities across Australia. Many vegetation communities rely on their blossom and fruit feeding behaviours to assist with pollination and seed dispersal.
- The loss of natural habitats due to human population expansion and development activities is a major cause of declining native species populations and a key threatening process for many rare, vulnerable and endangered species, including flying-foxes.
- Habitat loss is also considered by the ABS to be a key driver of increasing contact and conflict between humans and native species such as flying-foxes.
- The ABS recognises the importance of protecting and managing dwindling habitat resources in urban and rural areas for the conservation of all native species, and opposes any measures that deliberately remove or impair the function of those resources as flying-fox habitat.
- The ABS recognises the migratory behaviour and other long distance movements in flying-fox species, and supports legislation and management actions that account for population connectedness and protection across state boundaries.

What is the ABS?

The Australasian Bat Society (ABS) is a not-for-profit organisation, registered under the NSW Associations Incorporation Act 1984 through the NSW Department of Fair Trading. Our aim is to promote the conservation and study of bats in Australasia. ABS membership is wide-ranging and includes research scientists, natural resource managers, students, wildlife carers and members of the general public. Anyone with an interest in bats or conservation is welcome to join the Society. For more information on the ABS and membership, go to our web site at <http://ausbats.org.au/>.