

## Inquiry into the Animal Care and Protection Amendment Bill 2022

**Submission No:** 885  
**Submitted by:** Australasian Bat Society  
**Publication:** Make my submission and my name public  
**Attachments:** No attachment

### Submitter Comments:

The Australasian Bat Society (ABS) welcomes the review and would like to see changes to regulations with regards to fruit-tree netting and potential animal welfare impacts, in line with those made by the Victorian Government. The ABS has long been concerned about the impacts of poorly designed back-yard fruit netting on flying-foxes and endorsed the Wildlife-Friendly Fencing and Netting project ([wildlifefriendlyfencing.com](http://wildlifefriendlyfencing.com)). We wish to provide some expert insight to the importance for animal welfare of the (1) mesh aperture, (2) colour and visibility, and (3) strand diameter/filament type of fruit-tree netting. We kindly refer to the useful guide at [wildlifefriendlyfencing.com/WFF/Netting.html](http://wildlifefriendlyfencing.com/WFF/Netting.html) to help illustrate our points.

**1. Mesh aperture** The ABS recommends the use of densely woven netting that meets the “finger” test. Netting, even knitted multi-filament type, can lead to deadly entanglement for wildlife if a finger can be inserted through the mesh as in the photo included at the end of this letter. Scheelings and Frith (2015) found entanglement in netting to be the primary cause of flying-foxes in Victoria coming into care, with a mortality of nearly 40% (ie. 33.2% requiring euthanasia and 5.1% dying from injuries received). When a flying-fox becomes entangled in netting, particularly in nets thrown loosely over a tree, the net can cut off the animal’s blood circulation, burrow into its skin, and break its bones (Saunders 2004). Beck (2004) describes an entangled flying-fox suffering numerous breaks to finger bones, compound fracture to the arm, extensive torn wing membrane, and a swollen and cut mouth from attempting to bite off the netting. The correct aperture size will substantially reduce the risk of entanglement particularly when nets are drawn tightly over trees. However, while the most important factor in recognising “good” netting is aperture size, other factors are important as well.

**2. Colour and visibility** Flying-foxes use sight as their primary navigation tool when foraging at night. Unlike micro-bats they do not echolocate. With this fact in mind, we know that flying-foxes would be much better able to discern and avoid white netting against a dark backdrop of foliage or the night sky, than black netting. This aligns with their foraging preferences for white or light-coloured blossom and fruits (e.g., Fleming et al 2009). As such, the ABS/FFEG, in its expert opinion, strongly endorses the use of white (or light-coloured) netting to avoid any potential entanglements. We should note, that the benefit of being highly visible also means they may be more likely to move on without attempting entry, which is also a benefit to the gardener.

**3. Strand diameter** We noted that in the recommended legislation, there was no mention to the use of mono-filament netting. In the experience of ABS members and flying-fox rescue and rehabilitation groups across Australia, thin monofilament strands (less than 500 microns) kill and injure many flying-foxes each year (Beck 2004, Saunders 2004, Scheelings & Frith 2015). The finer the netting, the more horrific the injuries are likely to be. The exception to this is flywire or mosquito netting because it has apertures of 2mm or less. This type of netting need not be 500 microns. All 5mm x 5mm netting should have strand width of 500 microns (half a millimetre) to provide some residual stiffness. This allows the animal to crawl across the netting without becoming entangled. We thank you for taking these points into consideration.

References: Beck, M (2004). Backyard Fruit tree netting: deadly protection. The Australasian Bat Society Newsletter, 23, 21- 25  
 Fleming, T. H., Geiselman, C., & Kress, W. J. (2009). The evolution of bat pollination: a phylogenetic perspective. *Annals of Botany*, 104:1017-1043. <https://academic.oup.com/aob/article/104/6/1017/184229>  
 Maclean, J. (2011) The Devil’s Rope: flying-foxes in barbed wire fences in *The Biology and conservation of Australian Bats* (Eds. B. Law, P. Eby, L. Lumsden, and D. Lunney.) pp. 421-423  
 Saunders, L. (2004). Garden fruit trees and wildlife. The Australasian Bat Society Newsletter, 23, 18-20.  
 Scheelings TF, Frith SE (2015) Anthropogenic factors are the major cause of hospital admission of a threatened species, the Grey-

headed Flying-fox (*Pteropus poliocephalus*), in Victoria, Australia. PLoS ONE 10 (7): e0133638. <https://doi.org/10.1371/journal.pone.0133638>

About the Australasian Bat Society (ABS), Inc. The Australasian Bat Society is the peak body promoting bat conservation in the Australasian region. The primary aim of the ABS is to promote the conservation of bats and their habitats through the advancement of quality science and the extensive experience of its members. We recognise the intrinsic value of all bat species as well as their place in this country's natural heritage and the key ecological roles they play in our natural environment. The Australasian Bat Society is a not-for-profit organisation, registered under the NSW Associations Incorporation Act 1984 through the NSW Department of Fair Trading. ABS membership is wide-ranging and includes research scientists, natural resource managers, ecological consultants, educators, students, wildlife carers and members of the general public.

About the ABS Flying-Fox Expert Group (FFEG) The FFEG is the primary source of reliable, accurate information on Australian flying-foxes. It is represented by flying-fox specialists from research, government, industry, and advocacy groups, and it encourages a more scientific and sustainable approach to flying-fox management and conservation. For further information please visit <http://ausbats.org.au/>