

# Friends of Bats

## newsletter



Issue 115 December, 2014

## Ku-ring-gai Flying-fox Reserve – Council adopts management plan options, December 2014 *Nancy Pallin*

During 2014 the camp of grey-headed flying-foxes remained next to houses on the north side of Ku-ring-gai Flying-fox Reserve (KFFR). Residents close to the camp continued to find the noise, smell and droppings intolerable. They strongly lobbied Councillors seeking a solution.

Relocation of the release cage and tree removal/pruning previously undertaken were unsuccessful in reducing the impacts on residents.

In October, the Mayor, a staff member, two residents and the Member for Davidson met the NSW Minister for Environment to discuss the issues, following which Council staff prepared an options paper, including costings. This was presented to Councillors for a decision at Council's meeting on 9th December with a recommendation to endorse and/or fund these options:

**A.** Continuing to improve roost habitat in KFFR core, away from residential properties. [note - this action is currently being implemented through Environmental Trust grant funding (\$76,000 over 3 years) and Environmental Levy funding (\$40,000 per annum). This is a longer term strategy to reduce impacts (faecal, noise and smell) on residents living adjacent to KFFR.]

**B.** Private property tree removal [note - at the owners expense].

**C.** Selective roost tree removal/pruning within 10 metres from KFFR boundary in the most affected areas (Taylor and Waugoola Streets). (Alternative option was selective tree removal/pruning within 10m of a dwelling wall, pool, deck or other living space.) [See map. Each resident will be consulted as to whether they approve the removal of trees in the reserve near their property.]

The business paper included a published review of past flying-fox dispersal actions.

Prior to the meeting KBCS emailed all Councillors with the following comments:

- Support for recommendations A, B and C, provided that each tree was assessed on a case-by-case basis.
- Requests for a 100m buffer considered totally unacceptable as, for most of its length, the reserve is only 150m wide.
- Support financial assistance to double-glaze and insulate homes to reduce the impact of noise.
- The risk of contracting diseases from flying-foxes is extremely low. In the unlikely event of a person being scratched or bitten by a bat, medical advice should be sought; effective treatment is available.
- KBCS is sympathetic to residents who have flying-foxes roosting within 10m of their homes.

At the Council meeting two residents spoke against the proposal, wanting it to go further. KBCS Chair, Tim Pearson and Nancy Pallin spoke for the proposal as a reasonable compromise, arguing against any additional measures. Several other KBCS members attended.

Council resolved to endorse and/or fund the management actions A, B and C above, aimed at "nudging" flying-foxes from properties adjacent to KFFR. The financial costs of the various options weighed heavily on the Councillors. There was considerable debate amongst Councillors about 'should they even go that far'. The idea of defined buffer zones, or dispersal, seems to have been accepted as impractical. All things considered, this is not too bad a result. Without the long term KBCS support of the flying-foxes it is likely that KFFR may have suffered more damage.



Map 7 - 10m Buffer

**Map Legend** - Black line – boundary of Ku-ring-gai Flying-fox Reserve; Red line – 10m buffer; Yellow dots - Trees to be removed if adjacent resident approves; Green shading – slope more than 18 degrees. Source: Ku-ring-gai Council Ordinary Meeting of Council - 9 December, 2014 General Business 12/405 Appendix No. 3

## Ebola virus - update

Summarised by Jen O'Meara from an article by John Vidal, The Observer, 24 August 2014

The largest-ever outbreak of Ebola was triggered by a toddler's chance contact with a single infected bat, a team of international researchers revealed, after a major investigation of the origins of the deadly disease ravaging Guinea, Liberia, Ivory Coast and Nigeria.

A group of 17 European and African tropical disease researchers, ecologists and anthropologists spent three weeks talking to people and capturing bats and other animals near the village of Meliandou in remote eastern Guinea, where the present epidemic appeared in December 2013. They have concluded that the disease was spread by colonies of migratory fruit bats.

Early studies suggested that a new strain of Ebola had emerged in west Africa but, according to epidemiologist

Fabian Leendertz, a disease ecologist at the Robert Koch Institute in Berlin, who led the large team of scientists to Guinea, it is likely the virus in Guinea is closely related to the one known as Zaire ebolavirus, identified more than 10 years ago in the Democratic Republic of the Congo. Leendertz said the virus had probably arrived in west Africa via an infected straw-coloured fruit bat. These bats migrate across long distances and are commonly found in giant colonies near cities and in forests.

Scientists have suspected for several years that bats are the wild "reservoirs" of Ebola, but direct transmission to humans is extremely rare, despite communities regularly hunting the bats for food. Nearly all previous epidemics had been linked to the bush-meat trade, with hunters picking

up dead infected animals in the forest and selling them on. Previous outbreaks saw catastrophic death rates in gorilla and chimpanzee populations, which led some scientists to think they may be responsible for the disease spreading.

Chimps, gorillas, some antelopes and even pigs – which possibly eat fruit dropped to the ground by infected bats – have all been linked by the World Health Organisation to the spread of the disease, but the researchers now say no evidence has been found of other animals apart from bats being infected.

The straw-coloured fruit bat (*Eidolon helvum*) is Africa's second largest bat. It is classified as Near Threatened on the IUCN Red List ([International Union for Conservation of Nature](http://www.iucnredlist.org/)).

For more information visit: Richter H. V. and Cumming G. S. 2008 First application of satellite telemetry to track African straw-coloured fruit bat migration: <http://onlinelibrary.wiley.com/doi/10.1111/j.1469-7998.2008.00425.x/full>

## Bats may be part of Ebola solution as well as source of outbreak

By Greg Muller - sourced from <http://www.abc.net.au/news/2014-10-28/bats-may-be-part-of-ebola-solution-says-scientists/5847240>



Fruit bats for sale at a food market in Brazzaville, Republic of Congo, December 15, 2005. (Reuters: Jiro Ose)

A CSIRO research scientist says bats' immune systems could hold the key to fighting viruses like Ebola. Bats are suspected of being the natural host for the Ebola virus.

Dr Michelle Baker says the animals are capable of carrying large loads of the virus without suffering so much as a fever.

"If you're a virus and your primary goal in life is to reproduce and survive, you don't necessarily want to kill your host really quickly, so bats and viruses have achieved

a nice equilibrium," she said.

Bats live with Ebola by having certain components of their immune system constantly switched on so they are prepared before the virus enters their system.

"What we need to do now is learn how bats tolerate high levels of activation of the immune system, constantly, without any detrimental effects," Dr Baker said.

In contrast, the immune system of humans is only activated after contact with the virus.

Initially the virus shuts down the early response which then leads to a deadly overreaction. "By the time our immune system is activated, the virus is already out of control" Dr Baker said. "At this point, our immune system produces a huge pro-inflammatory response."

"The immune system's primary role is to destroy the virus but in the case of an infection such as Ebola, where the immune system is activated to a very high level, it's actually more damaging to the host than it is beneficial.

"A lot of the internal and external bleeding we see is actually a consequence of the immune system over-responding to the infection."

The way bats respond to viruses could provide a clue to successfully treating deadly infections like Ebola, but translating bat immunity into humans is also problematic because over-activation of the immune system can be so damaging.

"I think we've got a long way to go until we come up with a therapeutic we can translate from what we're learning from bats into humans." (continued P 4.)



Electron micrograph of Ebola virus - ABC News

## NSW govt. releases draft Flying-fox Camp Management Policy - KBCS comments

Nancy Pallin & Mina Bassarova

Threats such as habitat loss and climatic change have altered flying-fox distribution, leading to greater numbers of bats in urban environments. This increase in bat-human interaction places stress on both species.

In response to the changing situation, the NSW Office of Environment and Heritage (OEH) recently released a draft Flying-fox Camp Management Policy (2014) for comment.

This policy in its current form is reactionary, supporting short-term actions in response to human health fears and does not address long-term actions which would reduce flying-foxes in urban environments. A move to more interventionist camp management is implicit in the draft policy's structure.

KBCS made a submission to OEH expressing concern that the policy will not

achieve the balance needed between conservation of flying-foxes and their impacts on human settlements.

Following is a summary of the main points made in the submission:

**1. The new policy neglects to address the core issue of habitat loss.** The policy focuses on short-term actions such as tree removal or camp dispersal. A long-term plan is needed which protects current camps and foraging habitat, along with commitment to actions that will re-establish lost foraging habitat and create new sites for camps. Conservation of flying-fox habitat needs to be planned on a regional basis and will need coordination between the three levels of government.

**2. The new policy appears to be driven by health issues,** particularly those featured recently in the media. Education

programs, delivered directly to people living near camps, as well as to the general public, are required. Such programs need to explain the level of risk, which is low, and the practical steps which can be taken to avoid infection or to treat a potential infection.

**3. The policy neglects opportunities to improve the built environment.** Noise, odour and mess could be addressed through modifications such as double glazing and improvement of insulation.

**4. The short- and long-term outcomes of relocation attempts must be accompanied by an adequate monitoring program,** to record actions taken and their costs. This is not currently required of the policy but would ensure that relocations will not be presented by proponents as successful when they have just shifted the problem to other places and not solved it.

For more information visit <http://www.environment.nsw.gov.au/threatenedspecies/flyingfoxcampol.htm>

## Flying-fox mystery drives experts batty

Summarised from an article by Ben Westcott, Canberra Times 15 November 2014.

<http://www.canberratimes.com.au/environment/animals/flying-fox-mystery-drives-experts-batty-20141106-11dmfj.html>

Canberra's wildlife experts are being driven batty by a mystery gripping the capital – what has happened to all the baby flying-foxes? In January 2014, more than 6000 grey-headed flying foxes headed to the ACT's Commonwealth Gardens, the largest number ever to roost in the territory. A small colony stayed over winter for the first time in several years, but those who follow Canberra's bat community say they're not seeing many pups so far.

ACT Wildlife bat co-ordinator Kirstie Hawkins said only one bat had been brought into the organisation for help in October, compared with about 10, including babies, in the same period last year. She said it was the first time she had seen such a low number in the decade she had been working with flying foxes. "What's happening around Australia in September is [it's] baby season and there's only been a trickle of babies across Australia," Ms Hawkins said.

Australasian Bat Society (ABS) member Susan Lamb said a small group of about 500 to 1000 bats stayed over winter, something the ACT had not seen in several years. She said before 2003 this species of bat had been only an occasional visitor to the ACT. "We cannot really say whether it will become a trend for the Canberra colony."

Ms Lamb said no pups had been observed in the colony during their last visit but ABS would be returning soon to check again.

"Babies were recorded last spring in Canberra, so it will be interesting to see if there are babies in the colony this [year]," she said.



Hundreds of grey-headed flying foxes soar over Commonwealth Park in January 2014. Photo: Graham Tidy

Visit our website: [www.sydneybats.org.au](http://www.sydneybats.org.au)

Like us on Facebook: <https://www.facebook.com/SydneyBats>

## Vale Hannah 1988 - 2014: she influenced the minds of many! Tim Pearson

Hannah, one of the original education flying-foxes, died in October, 2014 at the ripe old age of 26.

Hannah came into care as an orphaned pup, way back in 1988, only a week or two old. She was unreleasable due to wing damage. Over the years she performed her duties as a KBCS education bat and must have met (and influenced) thousands of people at various displays and events. She was a gorgeous bat; gentle and easy to handle, adored by her handlers, and more than happy to be out in public. She also ruled the roost in the group - normally there is no rigid hierarchy in flying-fox camps, but in our group, Hannah only had to vocalise and any of the others would submit straight away...!



She was one of the group who moved from KBCS care at Lane Cove, to Australia Walkabout Wildlife Park in 2009, along with Stephanie, Bella, Koda, and Molly; and newcomers Scribbly, Jackson, Cally, Lily and Fleur.

Twenty six is an incredible age for a grey-headed flying-fox - we usually say that 20 years old in captivity is not unusual, but in the wild, few of the animals seem to live past seven years. We think that 26 is a record for a grey-headed flying-fox, although an Indian flying-fox (*Pteropus giganteus*) is recorded as living to 27 years. Whether it is a record or not, it's a very long life, during which Hannah served as a wonderful ambassador for bats.

This leaves Molly as the only survivor of the original KBCS education bat group which was transferred to AWWP. The 14 flying-foxes in the current group continue to do valuable work in educating the public and importantly, continue the legacy of Hannah and her fellow bats.

### Ebola virus - bats: part of the solution? cont. from P2.

African fruit bats first pass the virus to primates and then to humans. Dr Baker said transmission usually occurred through meat derived from a wild animal.

"A lot of the small villages in West Africa rely on bush meat as a primary form of protein in their diet," she said. "So the primary risk factor is butchering and handling of the raw meat."

"We know that primates get very sick from Ebola virus so they may be acting

as a secondary reservoir for Ebola."

CSIRO's Biosecurity Flagship director, Dr Kurt Zuelke, said the Ebola outbreaks and others like it, such as Hendra, Avian Influenza and SARS were the result of increased interaction between humans and wildlife.

"We see animals and people living in closer proximity as urban areas move into more rural areas," he said.

"Three-quarters of the new diseases in people are coming from animals as we see increased mobility of people."

### Help dispel bat myths!

This holiday season, we can all help to debunk myths about bats. Have you ever been asked the following questions?

- *Are flying-foxes a serious threat to human health?*
- *Are flying-foxes really in plague proportions?*
- *Is shooting flying-foxes humane?*

For great inspiration on tackling these issues visit [Don't Shoot Bats](http://www.sydneybats.org.au) to help you dispel those myths at the next barbeque.

**Our next bat awareness evening - Saturday 21 February, 2015 - 6.00 - 8.00 pm**  
**2nd Gordon Scout Hall, Rosedale Rd, Gordon - more details to follow**

### Bat Conservation Gift Fund News

Thank you to all our generous donors, whether anonymous or acknowledged below. Donations received since September 2014 total \$1160.

Donors:

R & J Abell, E Burgess, J Burke, J Canfield, B Crowther, S Galan, S Guntrip, R Noone, S O'Grady, J Pollock, L Pope, D Russell, E Sehmer, J Sinclair, J Snell, S Stanford, L Toby.

### Ku-ring-gai Flying-fox Reserve Bushcare Group

- has taken a break in January
- Meets every Tuesday 8.30am - 12.30pm
- New volunteers always welcome!
- Bring binoculars for watching wildlife

For more information ask Nancy Pallin via email: [web@sydneybats.org.au](mailto:web@sydneybats.org.au)

### Friends of Bats

is published quarterly by  
**Ku-ring-gai Bat Conservation Society Inc.**  
 PO Box 607, Gordon,  
 NSW, 2072 Australia.

Website: [www.sydneybats.org.au](http://www.sydneybats.org.au)  
 Email: [web@sydneybats.org.au](mailto:web@sydneybats.org.au)

Chairperson:

Tim Pearson 0417 259 310

Membership enquiries:

Penny Diakiw (02) 9449-3539

Newsletter editor:

Jen O'Meara