

Friends of Bats

newsletter

Issue 103, December 2011



Bushcare celebrates the Year of the Bat

Tim Pearson, with the support of a very lively and vocal flying-fox from Australian Walkabout Wildlife Park, gave a talk about flying-foxes and other bats at Ku-ring-gai Council Bushcare's end of year lunch in November.

Tim's talk provided an opportunity for Bushcarers to learn more about the ecological role of bats and gain a better appreciation of current threats to their natural habitat and the resulting increase in the number of camps in urban areas.

Year of the Bat - www.yearofthebat.org
Australian Walkabout Wildlife Park, Calga www.walkaboutpark.com.au



Luke (and Tim) address the Bushcare Lunch
(photo Cary Kuiper)

When will shooting of flying-foxes end?

Subsidies for installing full exclusion netting are now available to growers in the Sydney Basin and Central Coast areas of NSW. They will be available for three years. No licences will be issued for shooting of flying-foxes in these areas after June 2014.

However, there will not be a total ban on shooting of flying-foxes. After 1 July 2014 licences will still be issued in "special circumstances". According to the Office of Environment and Heritage, these would include:

- When orchards that are outside the normal geographic range of grey-headed flying-foxes experience one-off or unprecedented incursions (eg. the Central West of NSW during 2010 and 2011)
- When commercial crops that are not normally targeted by grey-headed flying-foxes experience one-off or unprecedented incursions (eg.

recent reports of grey-headed flying-foxes foraging in coffee plantations in northern NSW)

- When there is also established evidence of significant damage to commercial horticultural crops.

Guidelines for the granting of such licences are still to be developed.

Anecdotal reports indicate that many growers are preparing to install netting in the lead-up to the next fruit season and the government's \$5 million funding package should be well-utilised. However, some orchardists want to keep the right to shoot. In their opinion, netting is still too expensive, even with the government grant of up to 50%.

Fruit growers west of the Great Dividing Range are also lobbying the state government to extend the netting scheme to their area. But the Environment Minister, Robyn Parker, said there was no funding available

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Call for a moratorium on dispersals of flying-foxes from their camps

Nature Conservation Council of NSW (NCC*) held its annual conference in October, at which the NSW Wildlife Council submitted a motion to put pressure on State and Federal governments to declare a moratorium on dispersals of flying-foxes from their camps until:

- (a) a vaccine against Hendra virus (HeV) becomes available and/or
- (b) until sufficient evidence is gathered to establish conclusively the transmission pathways of HeV which include:
 - identifying any other vectors of the virus: mammals, birds, reptiles or insects; and
 - improved and more accurate methods and processes of testing for HeV.

The motion was passed unanimously. For the full text of the motion, visit: nccnsw.org.au/events/ncc-annual-conference-2011

* More about NCC: see box on page 2

to expand the netting program to other areas.

However, if uptake in the Sydney and central coast regions were below expectation, then the Government might consider using these funds in other areas.

The exact number of grant applications and netted area will become available after the Environmental Trust subcommittee meeting in February 2012.

KBCS comment

For over 200 years flying-foxes and birds have been shot by fruit growers in an attempt to protect their crops. Changing the culture

As reported in the Sydney Morning Herald on 2 October 2011:
www.smh.com.au/environment/animals/pests-drive-farmers-batty-20111001-112lo.html

is slow and difficult. Since 2009, a concerted effort from conservation and animal welfare organisations, with support from some fruit grower representatives, has succeeded in causing a substantial shift.

The NSW Government is to be commended on this progress but alarm bells will continue to ring until no licences are issued and fruit growers no longer use guns to kill wildlife.

KBCS and partner organisations will continue to challenge the meaning and validity of “special circumstance”.

Nature Conservation Council of NSW (NCC)

NCC (nccnsw.org.au) is a not-for-profit organisation representing community environment groups across NSW. It has a strong reputation for leading effective action and influencing the direction of environment protection in NSW.

KBCS has been a member of NCC since 1989 and values the membership as it gives us access to the services and support provided by NCC. It enables us to liaise with other like-minded conservation groups. NCC had a representative on the Flying-fox Consultative Committee which provided advice to the NSW Government on flying-fox issues.

KBCS drafted NCC’s policy on flying-foxes: nccnsw.org.au/sites/default/files/Flying%20Fox%20Policy%202010.pdf

Our Ed bats - still hanging in there!

Hannah’s 23rd Birthday Party

Janet Hutchinson

Not many flying foxes manage to have a 23rd birthday, much less have a party attended by admiring guests, some of whom have known Hannah for all her 23 years.

A gentle little bat, Hannah lived at Kukundi in Lane Cove National Park with the rest of KBCS education bats for a number of years until the group moved to a magnificent, newly-built aviary (battery, perhaps?) at Australian Walkabout Wildlife Park (AWWP), Calga, near Gosford. Hannah and Molly, the only two of the Kukundi group remaining, are part of a new group of handsome, healthy and contented flying foxes.

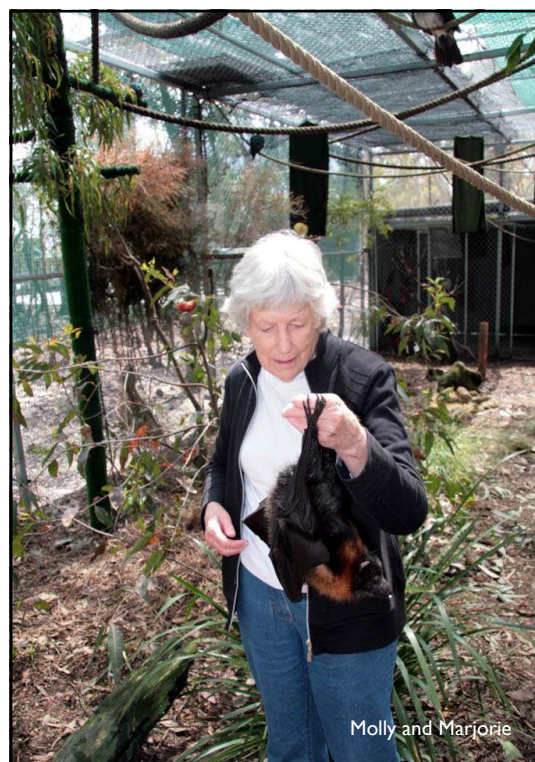
Hannah and Molly along with their new family continue to charm everyone and help with talks. KBCS members who travelled to the AWWP to celebrate Hannah’s birthday were delighted to find her looking so relaxed and happy and hope to celebrate her 24th with her next

year.
 The bats enjoyed the grapes while the visitors enjoyed the “Bat Fix”.

**Well done, Hannah,
 and thank you carers at Calga.**



Janet Hutchinson and Hannah in bat enclosure at Calga - Photo Tim Pearson



Molly and Marjorie

Molly Bat, one of the two remaining education flying-foxes living at Australian Walkabout Wildlife Park, gave birth last week to a boy.

All who know Molly waited anxiously for this birth as Molly turned 17 this year! Both are doing well.

Marjorie Beck

From Gordon to Winnipeg - field research on white-nose syndrome by a Gordon local

James Turner : jm.turner@uwinnipeg.ca

When I was young I took it for granted that one of Sydney's largest grey-headed flying-fox camps lived in my backyard and never gave it much more thought. I grew up at the end of Nelson St. in Gordon, so I have either seen or heard bats almost every day of my life.

On my many expeditions down to Rocky Creek I used to stop to observe these strange creatures grooming and sleeping as they hung upside down from the trees. I also used to sit fascinated as hundreds of them flew overhead after departing in search of nectar every night, at the same time that my Dad flew outside to put the car under cover every night.

Despite the love/hate relationship that they inspired amongst the bipedal terrestrial mammals of the North Shore, I always thought the flying-foxes were great. These days bats occupy most of my time, as I relocated from the colony in Gordon all the way to another one in Canada just to study them.

I have always been keenly interested in animals. I grew up second-rung to a Labrador; my brother and I kept mice as pets, and alongside the flying-foxes our backyard was full of possums, birds, reptiles and myriad invertebrates.

I developed a passion for the bush through Scouts and returned home with a mammal skull that I had found after every trip, some of which actually helped me pass vertebrate zoology courses during my undergraduate degree.

My enthusiasm for science grew stronger as I grew taller and I eventually completed a BSc with Honours at the University of New South Wales, followed by a PhD

studying pygmy-possums at the University of New England in Armidale.

I am currently undertaking a postdoctoral fellowship at the University of Winnipeg in Manitoba.

The laboratory I'm working in is studying how the little brown bat (*Myotis lucifugus*) is affected by white-nose syndrome (WNS), a disease that has killed more than one million North American bats since it appeared in New York State in 2006.

Tragically, WNS has caused the biggest decline in mammal numbers in recorded history and currently affects nine species of cave-hibernating



James crosses a frozen lake to reach a mine where little brown bats hibernate

microbat – two of which are classified as endangered.

Although no formal link has been established, it is thought that WNS is caused by the aptly named fungal pathogen *Geomyces destructans* (Gd), which invades skin of the bats' wings, ears and muzzle (it is the appearance of white fluffy fungal hyphae on the faces of the bats that gives WNS its name).

By the end of the winter

hibernation season the bats seem to starve to death, and it is thought that they arouse from torpor too often, prematurely depleting the fat reserves that they need to survive.

between animal species and their environments. Even a tough hibernator like the little brown bat, once considered the most abundant bat species in North America, may be locally extinct within two decades. Hopefully the knowledge we gain from

White nose syndrome has caused the biggest decline in mammal numbers in recorded history

Over the last winter we examined the nuts and bolts of how the bats hibernate: how long their torpor bouts are, how often they arouse and for how long and what effect Gd has on their hibernation patterns.

studying the bats and the fungus will allow us to implement strategies to mitigate the spread of WNS, protect vital habitat and perpetuate the affected species.



Hibernating little brown bats



It's a warm day (-15°C) when James descends a wire ladder into a cave searching for hibernating little brown bats.

Some students in our lab are looking at bat genetics, movement patterns, population dynamics and behaviour, which are all areas of bat biology that are essential to understand.

By combining our results we have come a few steps closer to figuring out exactly what WNS does and, importantly, what can be done to help the bats.

Unfortunately, at the moment it looks like WNS will slowly spread unimpeded across the continent. The rapid emergence of a destructive disease like this brings to light the delicate relationship

Torpor and Hibernation

Torpor is a controlled reduction in body temperature and metabolic rate that small mammals and birds use to save energy and survive cold ambient temperature and food shortages – a bit like switching your computer to “standby” mode. Hibernation usually occurs in winter and is a series of torpor bouts lasting 2-3 weeks, interrupted by periodic arousals where animals rewarm to a normal body temperature for a few hours.

Discovery of the first fishing bat in Europe

Tina Hsu

Weighing just 9g and measuring just over 40mm, the long-fingered bat (*Myotis capaccinii*) was long thought to be insectivorous, until researchers found fish bones and scales in their faeces in 2003. Now, researchers have captured footage of the bats actively fishing – flying low over the water to capture surface-feeding fish with their claws.

The long-fingered bat can be found foraging over wetlands and waterways - including canals and reservoirs - across its range, which hugs the Mediterranean

coasts of Morocco, Algeria, and Europe, stretching into Lebanon, Jordan, and Iran. It is believed to be the only fishing bat in Europe.

From http://news.nationalgeographic.com/news/2010/11/101123-bats-fishing-discovered-europe-mediterranean-science-animals/?source=link_fb20101127fishingbateurope

Video – www.youtube.com/watch?v=ITmtaW34f3M



Festival of the Flying Fox

by Jenny Sharman 30 days ago



Festival of the flying-fox video

vimeo.com/31859720

“I grudgingly admit that this camp is somewhat larger than Gordon, but the bats are a bit smaller.” Ken Holland

Moth whisperer

Tina Hsu

Bats echolocate in the dark to ‘see’ their surroundings, including prey. However, several moth species have evolved ears that can hear bat calls and can avoid predators. Most can detect bats as far as 30 metres away. Some species, such as the tiger moths, even use ultrasonic clicks to ‘jam’ a bat’s sonar (<http://news.nationalgeographic.com/news/2009/07/090717-moths-jam-bat-sonar.html>).

The Barbastelle Bat (*Barbastella barbastellus*) in the UK is a proficient hunter and eats mostly moths with ears. A study shows

that the bat can get as close as 3.5 m to the bait moth without being detected, as its calls are up to 100 times fainter than those of other bats. "All of the other bats have a large call that travels far, [like] a bright torch", but the Barbastelle bat’s sonar is like "a candle, only 'illuminating' the area just around them", says study leader, Holger Goerlitz, a biologist at the University of Bristol in the United Kingdom.

From <http://news.nationalgeographic.com/news/2010/08/100831-bats-whisper-moths-environment-animals-science/>



The Australian Mint has released a collectible \$1 coin featuring a GHFF <http://www.australian-threepence.com/blog/2011/09/australian-dollar-coins-2011-greyheaded-flying-fox-air-series.html>

Bat Conservation Gift Fund News

Donations September to December 2011 totalled \$1700, received from: R & J Abell, M Bell, A Cohen, H Fabig, J Fairlie-Cunninghame, M Hingston, N Kent, M King, P Langley, D Lennard & E Sehmer, S O’Grady, H Seaton, J Sinclair, V Smith, N Sutherland and A Whitney.

Thank you all for your generosity!

Donations over \$2 are tax deductible - receipts are mailed with the next newsletter unless otherwise requested.

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Ku-ring-gai

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