

Acknowledgements:

The idea of Mac Koala Club was envisaged in 1995 by Steven Ward and Robert Close from Western Sydney University and Jeff McGill, the editor of the Macarthur Advertiser. Jeff supported the project whole-heartedly throughout its 18 year life and deserves great credit for its success.

The project was planned as a way to involve the Campbelltown—Macarthur residents in contributing to a scientific project by reporting koala sightings in an area where koalas are relatively scarce and difficult to find and study. Once found and ear-tagged, the koalas could be studied when the community reported sightings. Mac Koala Club columns then allowed feedback to the community on the koalas' movements and life histories, and provided updates on the koala research. The columns involved the wider community with koalas and the unique bushland environment which borders the eastern edge of Campbelltown.

For the next 18 years (1995 to 2013), articles were written by Robert Close, Steven Ward and Tristan Lee. These stories convey scientific research in a way that everyone could follow. The articles included the life histories of generations of koalas living in the Campbelltown area. Starting with Molly's story and ending with St Helen, readers of the Macarthur Advertiser followed the Mac Koala Club column each week. In the early years, young members had their birthday wishes from Mac Koala printed in the column. However, not all columns featured koalas. For example, the first two official records of platypuses in the Georges River were reported on the Mac Koala Club hot-line and details were provided in the next Mac Koala Club columns.

Several people were involved in the making of this four volume set and they deserve credit for their dedication in storing, collating and indexing the columns: Thelma Bourke, Verlie Fowler, Georgia Close and the Campbelltown Library Staff especially Claire Lynch and Andrew Allen.

We don't know what the future of Campbelltown's koalas will be. The eventual arrival of the disease, chlamydia, is likely to have a major effect on them as will clearing of bushland. These columns, presented in the four volume set will allow historians, researchers, students and interested community members to picture the Campbelltown koalas at a time when their numbers and distribution were increasing.

Dedication:

This four volume set of Mac Koala columns is dedicated to the late Thelma Bourke who collected the columns in the early years and stored them for all of us to enjoy today and in the future.

Stephen J. Fellenberg (Insektus) and Lynette Bowden: Curators and Editors

4th February 2016

Campbelltown's Macarthur Advertiser

Mac's Koala Club

Volume 3. 2006—2010



This four (4) volume set of Campbelltown's Macarthur Advertiser Mac's Koala Club was compiled by Lynette Bowden and Stephen Fellenberg. February 2016.

Campbelltown Macarthur Advertiser

Mac's Koala Club

2006 - 2010

Date	Article Name	Author
29/12/2010	No article	
22/12/2010	No article	
15/12/2010	Young Harry copped this	Dr Robert Close & Tristan Lee
8/12/2010	Identity is still a mystery	Dr Robert Close & Tristan Lee
1/12/2010	Helen's a big, healthy girl	Dr Robert Close & Tristan Lee
24/11/2010	They've always been here	Dr Robert Close & Tristan Lee
17/11/2010	Desperately seeking Susan	Dr Robert Close & Tristan Lee
10/11/2010	Cub Alex a tricky catch	Dr Robert Close & Tristan Lee
3/11/2010	Rivalry expected as new Harry makes his move	Dr Robert Close & Tristan Lee
27/10/2010	Project a great success	Dr Robert Close & Tristan Lee
20/10/2010	Appin Road takes its toll	Dr Robert Close & Tristan Lee
13/10/2010	Animals are on the move	Dr Robert Close & Tristan Lee
6/10/2010	Above all else, do no harm	Dr Robert Close & Tristan Lee
29/09/2010	Koala sighting will rise	Dr Robert Close & Tristan Lee
22/09/2010	No article	
15/09/2010	Price on the move again	Dr Robert Close & Tristan Lee
8/09/2010	Lindsay has disappeared	Dr Robert Close & Tristan Lee
1/09/2010	Our population's thriving	Dr Robert Close & Tristan Lee
25/08/2010	Case of mistaken identity	Dr Robert Close & Tristan Lee
18/08/2010	Tricky job keeping track	Dr Robert Close & Tristan Lee
11/08/2010	Amica visits school kids	Dr Robert Close & Tristan Lee
4/08/2010	Skull reveals bite of past	Dr Robert Close & Tristan Lee
28/07/2010	Mum and joey reunited	Dr Robert Close & Tristan Lee
21/07/2010	Charlotte's car encounter	Dr Robert Close & Tristan Lee
14/07/2010	Love is in the air for the boys	Dr Robert Close & Tristan Lee
7/07/2010	Mining plans put environment at risk	Dr Robert Close & Tristan Lee
30/06/2010	Termite has role to play	Dr Robert Close & Tristan Lee
23/06/2010	Females go off wandering	Dr Robert Close & Tristan Lee
16/06/2010	We spoke a bit too soon	Dr Robert Close & Tristan Lee
9/06/2010	Joeys protected by mums	Dr Robert Close & Tristan Lee
2/06/2010	Jeremy's not Sam's dad	Dr Robert Close & Tristan Lee
26/05/2010	New system working well	Dr Robert Close & Tristan Lee
19/05/2010	Mum and joey on move	Dr Robert Close & Tristan Lee
12/05/2010	Parting is indeed a sorrow	Dr Robert Close & Tristan Lee
5/05/2010	Amanda captured hearts	Dr Robert Close & Tristan Lee
28/04/2010	Curls impresses footy lads	Dr Robert Close & Tristan Lee
21/04/2010	Two stuffed koalas stolen	Dr Robert Close & Tristan Lee
14/04/2010	Unknown truth is out there	Dr Robert Close & Tristan Lee
7/04/2010	Curls still alive and well	Dr Robert Close & Tristan Lee
31/03/2010	June comes back to die	Dr Robert Close & Tristan Lee
24/03/2010	Rock-hurlers target Curls	Dr Robert Close & Tristan Lee
17/03/2010	Females keep mum close	Dr Robert Close & Tristan Lee

10/03/2010	A slower pace in March	Dr Robert Close & Tristan Lee
3/03/2010	Curly keeps cropping up	Dr Robert Close & Tristan Lee
24/02/2010	Sugar glider gets better	Dr Robert Close & Tristan Lee
17/02/2010	What's in the eucalyptus tree	Dr Robert Close & Tristan Lee
10/02/2010	A Sibling for Curly emerges	Dr Robert Close & Tristan Lee
3/02/2010	Curly continues to hit the road in search of a home	Dr Robert Close & Tristan Lee
27/01/2010	School kids await visits from wandering marsupials	Dr Robert Close & Tristan Lee
20/01/2010	Sightings pose new queries about marsupial behaviour	Dr Robert Close & Tristan Lee
13/01/2010	Unknown territory explored	Dr Robert Close & Tristan Lee
6/01/2010	No article	

Date	Article Name	Author
30/12/2009	No article	
23/12/2009	Furry and flying: a rare beauty emerges	Dr Robert Close & Tristan Lee
16/12/2009	Curly makes her great escape	Dr Robert Close & Tristan Lee
9/12/2009	A case history of injuries	Dr Robert Close & Tristan Lee
2/12/2009	Boys find sprawled oldies	Dr Robert Close & Tristan Lee
25/11/2009	Aces report their sightings	Dr Robert Close & Tristan Lee
18/11/2009	Our colonies do offer hope	Dr Robert Close & Tristan Lee
11/11/2009	Mind our friends' furry ears	Dr Robert Close & Tristan Lee
4/11/2009	Male behaviour	Dr Robert Close & Tristan Lee
28/10/2009	Test to find father	Dr Robert Close & Tristan Lee
21/10/2009	Price was just right	Dr Robert Close & Tristan Lee
14/10/2009	No article	
7/10/2009	Lads instructed care for wildlife	Dr Robert Close & Tristan Lee
30/09/2009	Vicki's now retired	Dr Robert Close & Tristan Lee
23/09/2009	Close call for Carrie	Dr Robert Close & Tristan Lee
16/09/2009	Mating season calls	Dr Robert Close & Tristan Lee
9/09/2009	Roadkill a mystery	Dr Robert Close & Tristan Lee
2/09/2009	Lucky encounter	Dr Robert Close & Tristan Lee
26/08/2009	Help them up in life	Dr Robert Close & Tristan Lee
19/08/2009	Many lucky escapes	Dr Robert Close & Tristan Lee
12/08/2009	Leafy suburbia suits an animal's lifestyle	Dr Robert Close & Tristan Lee
5/08/2009	Vicki's still missing	Dr Robert Close & Tristan Lee
29/07/2009	No article	
22/07/2009	Furry ambassador missing	Dr Robert Close & Tristan Lee
15/07/2009	Sightings on the increase	Dr Robert Close & Tristan Lee
8/07/2009	Caring motorists save joeys	Dr Robert Close & Tristan Lee
1/07/2009	Close encounter with a mole	Dr Robert Close & Tristan Lee
24/06/2009	Road forms a barrier	Dr Robert Close & Tristan Lee
17/06/2009	Curly gets on the move	Dr Robert Close & Tristan Lee
10/06/2009	Don't take dead wood	Dr Robert Close & Tristan Lee
3/06/2009	Healed falcon soars	Dr Robert Close & Tristan Lee
27/05/2009	Rain dampens work	Dr Robert Close & Tristan Lee
20/05/2009	GPS makes it easy	Dr Robert Close & Tristan Lee
13/05/2009	Close call for old lady	Dr Robert Close & Tristan Lee
6/05/2009	Curly gets pushed	Dr Robert Close & Tristan Lee
29/04/2009	Tricky rescue from tree	Dr Robert Close & Tristan Lee
22/04/2009	Wombat puts up a fight	Dr Robert Close & Tristan Lee

15/04/2009	Bits and pieces about Wingello wombat	Dr Robert Close & Tristan Lee
8/04/2009	Wingello wombat poses a bit of a puzzle	Dr Robert Close & Tristan Lee
1/04/2009	Cubs do not be the young ones very long	Dr Robert Close & Tristan Lee
25/03/2009	Charlotte set for television stardom	Dr Robert Close & Tristan Lee
18/03/2009	Be alert for old-timer	Dr Robert Close & Tristan Lee
11/03/2009	Carelessness puts Courtney at risk	Dr Robert Close & Tristan Lee
4/03/2009	Happenings in Appin	Dr Robert Close & Tristan Lee
25/02/2009	Lonely Jeremy goes for wander	Dr Robert Close & Tristan Lee
18/02/2009	Males on the move	Dr Robert Close & Tristan Lee
11/02/2009	They may drop in for a drink	Dr Robert Close & Tristan Lee
4/02/2009	Gone to ground in a cool cave	Dr Robert Close & Tristan Lee
28/01/2009	No article	
21/01/2009	Death plunge ends a chase	Dr Robert Close
14/01/2009	No article	
7/01/2009	No article	

Date	Article Name	Author
31/12/2008	No article	
24/12/2008	No article	
17/12/2008	By gum, look at that	Dr Robert Close & Tristan Lee
10/12/2008	Becky's death is an important loss	Dr Robert Close & Tristan Lee
3/12/2008	A high life can get very tough	Dr Robert Close & Tristan Lee
26/11/2008	Alan found sick and dishevelled	Dr Robert Close & Tristan Lee
19/11/2008	Feistiest koala in 18 years	Dr Robert Close & Tristan Lee
12/11/2008	Female's short life	Dr Robert Close & Tristan Lee
5/11/2008	Many on the move	Dr Robert Close & Tristan Lee
29/10/2008	AGL conservation will aid critters	Dr Robert Close & Tristan Lee
22/10/2008	A long journey ends with hope	Dr Robert Close & Tristan Lee
15/10/2008	A tale of two cities, two rivers and a shared quest to save nati	Dr Robert Close & Tristan Lee
8/10/2008	A happy end to night drama	Dr Robert Close & Tristan Lee
1/10/2008	Capture Susan in tiptop form in treetop	Dr Robert Close & Tristan Lee
24/09/2008	Plea to preserve the natural habitat	Dr Robert Close & Tristan Lee
17/09/2008	Newspaper helped research program	Dr Robert Close & Tristan Lee
10/09/2008	Several factors in fauna ranking paradox	Dr Robert Close & Tristan Lee
3/09/2008	It looks as though it's an urban invasion	Dr Robert Close & Tristan Lee
27/08/2008	Barlook taken to a safe and leafy home	Dr Robert Close & Tristan Lee
20/08/2008	The big man on campus	Dr Robert Close & Tristan Lee
13/08/2008	Bushwalkers vital in finding koalas	Dr Robert Close & Tristan Lee
6/08/2008	Research tracks life and death	Dr Robert Close & Tristan Lee
30/07/2008	Benedict takes to drink outside a church	Dr Robert Close & Tristan Lee
23/07/2008	Church watcher named Benedict	Dr Robert Close & Tristan Lee
16/07/2008	Critter ventures out of bush	Dr Robert Close & Tristan Lee
9/07/2008	Colony on the move much earlier than usual	Dr Robert Close & Tristan Lee
2/07/2008	New cat breed a threat to native animals	Dr Robert Close & Tristan Lee
25/06/2008	Difficult to find a female who breeds	Dr Robert Close & Tristan Lee
18/06/2008	The personal touch	Dr Robert Close & Tristan Lee
11/06/2008	GPS collars make tracking easy	Dr Robert Close & Tristan Lee
4/06/2008	Rampaging males	Dr Robert Close & Tristan Lee
28/05/2008	Some of the UWS attractions can fly	Dr Robert Close & Tristan Lee

21/05/2008	Healthy mum and cub	Dr Robert Close & Tristan Lee
14/05/2008	Don't miss platypus talk	Dr Robert Close & Tristan Lee
7/05/2008	Barney in the fight of his life	Dr Robert Close & Tristan Lee
30/04/2008	All-night creek vigil for platypuses	Dr Robert Close & Tristan Lee
23/04/2008	O'Hares Creek full of surprises	Dr Robert Close & Tristan Lee
16/04/2008	Martine first found in 1998	Dr Robert Close & Tristan Lee
9/04/2008	Genealogists hear a furry family history	Dr Robert Close & Tristan Lee
2/04/2008	What'll they do when the wattle changes?	Dr Robert Close & Tristan Lee
26/03/2008	Barney's in strife, Gorilla's fighting fit	Dr Robert Close & Tristan Lee
19/03/2008	Lots of fur flew in treetop tussle	Dr Robert Close & Tristan Lee
12/03/2008	Join pellet hunt to help research	Dr Robert Close & Tristan Lee
5/03/2008	As quiet as mice	Dr Robert Close & Tristan Lee
27/02/2008	Cramar sad after a blue in the tree	Dr Robert Close & Tristan Lee
20/02/2008	Drawn to suburbs	Dr Robert Close & Tristan Lee
13/02/2008	Now here's the long and the short of it	Dr Robert Close & Tristan Lee
6/02/2008	Visitors go wild	Dr Robert Close & Tristan Lee
30/01/2008	Drivers urged to be on the alert	Dr Robert Close & Tristan Lee
23/01/2008	No article	
16/01/2008	No article	
9/01/2008	No article	
2/01/2008	No article	

Date	Article Name	Author
26/12/2007	No article	
19/12/2007	No article	
12/12/2007	Most safe, for now	Dr Robert Close & Tristan Lee
5/12/2007	Irene cops earful and starts a dynasty	Dr Robert Close & Tristan Lee
28/11/2007	A painful way to go	Dr Robert Close & Tristan Lee
21/11/2007	Virus problem just got worse	Dr Robert Close & Tristan Lee
14/11/2007	Death at black spot	Dr Robert Close & Tristan Lee
7/11/2007	Very sad critter had badly infected eyes	Dr Robert Close & Tristan Lee
31/10/2007	No article	
24/10/2007	Three days.2.8km and still going strong	Dr Robert Close & Tristan Lee
17/10/2007	Take us to you Flossie	Dr Robert Close & Tristan Lee
10/10/2007	Little puggle eventually left	Dr Robert Close & Tristan Lee
3/10/2007	Daily sightings logged	Dr Robert Close & Tristan Lee
26/09/2007	Why firewood's not cool	Dr Robert Close & Tristan Lee
19/09/2007	A sad but a natural death	Dr Robert Close & Tristan Lee
12/09/2007	Courtney wants a bit of courtship	Dr Robert Close & Tristan Lee
5/09/2007	Gorilla rescued from muder of crows	Dr Robert Close & Tristan Lee
29/08/2007	New find is a darling	Dr Robert Close & Tristan Lee
22/08/2007	Harrison settles in	Dr Robert Close & Tristan Lee
15/08/2007	When appearances confuse	Dr Robert Close & Tristan Lee
8/08/2007	Enviro law gets cross-examined	Dr Robert Close & Tristan Lee
1/08/2007	Bears on the move	Dr Robert Close & Tristan Lee
25/07/2007	No Koalas in sight	Dr Robert Close & Tristan Lee
18/07/2007	Why they are inbred	Dr Robert Close & Tristan Lee
11/07/2007	Devils in dire danger	Dr Robert Close & Tristan Lee
4/07/2007	No article	

27/06/2007	Pager sets off early hunt	Dr Robert Close
20/06/2007	Lucky us so near the bush	Dr Robert Close
13/06/2007	Territorial bellows start	Dr Robert Close
6/06/2007	Teeth an ancestral trace	Dr Robert Close
30/05/2007	No article	
23/05/2007	Wrong number mystery	Dr Robert Close
16/05/2007	Gorging out on scenery	Dr Robert Close
9/05/2007	Foliage would hide Flossie	Dr Robert Close
2/05/2007	Stringy bark home for Jeremy	Dr Robert Close
25/04/2007	Martine keeps in good health	Dr Robert Close
18/04/2007	Foxy little pests threaten atassie	Dr Robert Close
11/04/2007	No article	
4/04/2007	Poosum removal not the way to go	Dr Robert Close
28/03/2007	Echidna spotted	Dr Robert Close
21/03/2007	Plenty of action out in the branches	Dr Robert Close
14/03/2007	Lithgow panther spotted near Appin	Dr Robert Close
7/03/2007	Tough fights are won by activists	Dr Robert Close
28/02/2007	Group will stick to endangered insect	Dr Robert Close
21/02/2007	Helped needed to find off-air Fran	Dr Robert Close
14/02/2007	Have a sticky at this	Dr Robert Close
7/02/2007	Signs make scents	Dr Robert Close
31/01/2007	Find turns the tide	Dr Robert Close
24/01/2007	Mystery moves in the bush	Dr Robert Close
17/01/2007	Here's who to ring when you spot woe	Dr Robert Close
10/01/2007	Drop in koala sightings	Dr Robert Close
3/01/2007	No article	

Date	Article Name	Author
27/12/2006	No article	
20/12/2006	Six koalas sighted in a day	Dr Robert Close
13/12/2006	Maybe they're not so dumb	Dr Robert Close
6/12/2006	Flossie missing inaction	Dr Robert Close
29/11/2006	New sightings	Dr Robert Close
22/11/2006	Young male branches out	Dr Robert Close
15/11/2006	Hard-to-catch Sam is really Samantha	Dr Robert Close
8/11/2006	Brendan gets away	Dr Robert Close
1/11/2006	Meetings with Maggie	Dr Robert Close
25/10/2006	Going out on a limb for love	Dr Robert Close
18/10/2006	Fires spark fresh fear	Dr Robert Close
11/10/2006	Koala coupe freed	Dr Robert Close
4/10/2006	Mum sticks up for cub	Dr Robert Close
27/09/2006	Stick insects need friends to survive	Dr Robert Close
20/09/2006	No article	
13/09/2006	Thefts a set back	Dr Robert Close
6/09/2006	They're everywhere as mating season begins	Dr Robert Close
30/08/2006	They are vulnerable so be very mindful	Dr Robert Close
23/08/2006	Be mindful of them	Dr Robert Close
16/08/2006	Those rare species	Dr Robert Close
9/08/2006	Journey into the unknown	Dr Robert Close

Date	Article Name	Author
2/08/2006	Cubs go to school	Dr Robert Close
26/07/2006	Take note of sightings	Dr Robert Close
19/07/2006	Flossie's on her way	Dr Robert Close
12/07/2006	Powerful owl on the prowl	Dr Robert Close
5/07/2006	Swamps learn to love'em	Dr Robert Close
28/06/2006	Watch out for any fauna	Dr Robert Close
21/06/2006	Hotline:keep on trying	Dr Robert Close
14/0/2006	The sorry tale of koalas near Sawtell	Dr Robert Close
7/06/2006	Antechinus brings great appeal	Dr Robert Close
31/05/2006	Tracking dingoes now high-tech business	Dr Robert Close
24/05/2006	Nathan sadly off to gum trees in heaven	Dr Robert Close
17/05/2006	Natural balance demands respect	Dr Robert Close
10/05/2006	Macarthur Heritage lectures on what's in our wild surrounding	Dr Robert Close
3/05/2006	Spotters' confusion is now sorted out	Dr Robert Close
26/04/2006	Road a wildlife treasure trove	Dr Robert Close
19/04/2006	Make no bones about missing link	Dr Robert Close
12/04/2006	Columnist ties the knot	Dr Robert Close
5/04/2006	Tracked with radio-collars	Dr Robert Close
29/03/2006	Perhaps the van went over the cliff	Dr Robert Close
22/03/2006	Thief targets gear and Tarago van	Dr Robert Close
15/03/2006	Golly, Miss Molly's sure been around	Dr Robert Close
8/03/2006	More dogs mean more koala deaths	Dr Robert Close
1/03/2006	Plea for help with a colony	Dr Robert Close
22/02/2006	Turtles that go walkabout	Dr Robert Close
15/02/2006	Telling the guys from the gals	Dr Robert Close
8/02/2006	Report's a chopper read	Dr Robert Close
1/02/2006	Radio-collared mum oblivious to disaster	Dr Robert Close
25/01/2006	Puzzling road death of an itinerant male	Dr Robert Close
18/01/2006	No article	
11/01/2006	No article	
4/01/2006	Attention turns to backyard bird life	Dr Robert Close

Attention turns to backyard bird life

Mac Koala

THE first Mac Koala column appeared on October 25, 1995 and approximately 500 have appeared since then. Although most of the topics have been koala-based we have often discussed other species.

Birds, in particular, have been a focus and the response from readers who have sighted rare species in the area has provided important information. Many of the same features of Campbelltown's habitat that support the koala population are also important for birds.

Those features include the presence of the permanent water of the Georges River, the range of soil types (sandstone, shale and alluvial), the varied topography and the variety of tree species for food and shelter.

There is still much to learn about our birds, however, and a website set up by the Australian Museum in Sydney has made it easy to both learn about them and contribute to our knowledge. It is www.birdsinbackyards.net and has lots to offer.

The site contains descriptions, photos and

sound recordings of local birds and there is a total list of 181 species. A special search option allows the identification of birds from their shapes and colours.

Then, by becoming a member, you can contribute to the backyard birds survey. The main aim of this survey is "to monitor changes in the distribution and abundance of the complete range of birds that inhabits our towns and cities. A secondary aim is to relate variation in bird communities to the design of suburbs and the structure and species of plants in urban gardens".

There are three ways that you can contribute to the survey. The preferred method is to record all the birds you observe in your garden on a single day, over a 20-minute period, between 7am and 10am.

or you can keep a list of all the bird species you observe incidentally in your garden over a week or rely on your memory to recall all the bird species you have observed in your garden in the past year. Send in new data whenever you like but you must fill in a new online form each time. Report koala sightings on the University of Western Sydney koala pager, 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, January 11, 2006

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, January 18, 2006

Puzzling road death of an itinerant male

A FEW days before Christmas we received a call from a resident from Ruse who reported a dead koala with ear tags beside a fire trail not far from the Georges River.

The animal turned out to be Grant (pronounced "Grunt") who we had first captured in December, 1998.

He was an adult male at that time so must have been at least four years old and therefore at least 11 years old at the time of his death.

This is a good age for a koala and considerably older than we had expected male koalas to live when we started our research.

In those seven years that he'd been ear-tagged, we'd spotted him only five times, mostly in Shirley's territory and we'd not seen him since September, 2003.

This lack of sightings is something

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of a mystery considering the amount of time that we'd spent tracking Shirley.

It's quite likely, therefore, that Grant spent most of his time in bushland where walkers seldom travel; he might even have crossed the Georges River to visit female koalas there.

We still don't clearly understand the movements of male koalas in the Campbelltown area.

One male, Jacob, roamed over a huge area of 300 hectares in Kentlyn, while Nathan in St Helens Park confines himself to the 100 hectares of Spring Creek valley which he shares with three other males.

Grant's death is something of a

mystery. An autopsy did not reveal any obvious cause of death and he seemed in excellent condition. Our only clue is that less than 200 metres from his body we found another male koala (untagged) snoozing in a tree. Given the rarity of sighting koalas, it seems unlikely that proximity of this male to Grant's body was a coincidence. Perhaps Grant had been pushed from a tree during fighting.

It is valuable information to be able to record Grant's death even if we don't know the cause. Without the call from the resident we never would have found the body.

Remember to call the UWS koala pager on 9963 9996 to report koalas, dead or alive. The community role in our studies has been vital for acquiring data.

- Dr Robert Close

Radio-collared mum oblivious to disaster

1/2/06

Franchesca still thrives

FRANCHESCA is the only koala that we have radio-collared at Wedderburn, which is near the site of the proposed development that caused a battle between developers and conservationists almost 20 years ago.

The battle eventually led to the development being prevented, and the area being included in the Dharawal State Recreation Area.

For at least 14 of those 20 years, Franchesca (named by a UWS student, Frank, who originally found her) has sat in trees, oblivious to the battle, and has also survived two major fires.

Franchesca has produced five cubs that we know of, one which died as a teenager, and another who disappeared with her radio-collar. Franchesca's birth rate has been slower than that of the females at St Helens Park or Kentdyn/Ruse, and the cubs' growth has been slower.

She was seen last week with her latest cub, long after the other females have weaned cubs.

What caught the attention of our radio-trackers, Wendy and Mick, however, was that Franchesca was communicating with the cub, with squeaks like the noise made by a party toy. At the time the cub was about one metre above its mother, who was clearly agitated.

Wendy and Mick interpreted the sound as meaning "watch out for these people and don't do anything to attract attention".

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When we went to the books to check this interpretation, however, we found lots of information about the pig-like bellow of the males, and the crying wail of the apparently distressed animals, but very little about motherly interactions. The cubs are well known to squeak, and we have seen mothers respond quickly to that call. One author spoke of some females making a "snarl" when approached by other koalas. In general, the sounds made by females were recorded either as aggressive or related to aggression by other koalas.

One author, however, reported that females occasionally made a "groan" when approaching their cubs. Another reported "moans" made by females while resting or feeding and another reported females "muttering" when two were in the same tree. Nothing has been reported that quite matches Franchesca's vocalisation. Perhaps we have seen something new.

■ Please report sightings of koalas on the UWS koala pager 9962 9996.

- Dr Robert Close

Report's a chopper read

A PUBLIC environment report on the impacts of the proposed relocation of the Army's 171 Aviation Squadron of 12 Black Hawk helicopters to Holsworthy was recently released for public comment.

The redeployment, to enhance mobility and training to combat terrorism, will involve construction of facilities for 200 personnel, including hangars and working accommodation.

It will also mean that there will be 1300 sorties a year flying out from the new base.

The associated noise and vibration will affect wildlife living in the Holsworthy range area and residents living near the Georges River.

The environmental report includes a noise map of the range, showing that all parts of it will be exposed to noise levels that exceed 70 decibels and that housing beside the Georges River will face levels of 60db. To put those

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levels into perspective, a rock band (indoors) would produce 108-114db, a vacuum cleaner, 70db, a conversation (indoors) 60, while bird calls (outdoors) would produce 44db.

We are concerned that the noise and vibrations will disrupt the communication between individuals of the many different wildlife species that live on the Holsworthy Range and in particular the koalas.

Male koalas bellow from August to March, usually in the evenings and particularly during still nights and the sound can travel 500 metres or more. The bellowing is important for organising the social activities of the animals and seems to be a warning to other males and an invitation to females.

If the Black Hawks regularly fly near

the koala breeding areas at night they may well interrupt the bellowing and associated responses. However, no experimental studies of the effects of helicopter noise on koalas have been conducted and it is therefore difficult to be definite.

We will certainly be using our radio-collared koalas to examine any changes in movements after flights begin.

A copy of the environment report is available for inspection in the reference room in the Campbelltown Library for those interested.

Submissions may be made until February 24 by fax: (02) 6243 5143, email: communityinfo@ERM.com or by mail: 171 Squadron Relations Officer c/- ERM, Locked Bag 24, Broadway NSW.

Remember to report koala sightings on the UWS koala pager, 9962 9996.

- Dr Robert Close

Telling the guys from the gals

JUST as in Campbelltown, the koala population of the Kurralong to Bilpin area of north-western Sydney appears to be increasing.

A caller from near Bilpin rang last week at 10am to report that two koalas were bellowing and screaming in his garden.

He said that a large koala was halfway up the tree and was bellowing, while a smaller one, that he took to be a female, was higher up the tree and was making crying noises.

He wasn't sure, however, if the second animal was actually a female or just a young male.

The distinction is important because, if it were a female, then the area is likely to be holding a breeding population.

A major aim of our work is to map the entire koala

breeding areas across the Sydney basin.

Fortunately, it is quite easy to distinguish a male koala from a female because the former has a small sternal gland which shows out as a grey, greasy patch in the middle of his white chest.

In a large, dominant male the patch will be the size of a 50-cent piece while in younger animals it will be smaller and less obvious.

Armed with this information the caller set off with his binoculars to solve the problem. He rang back a few minutes later to report that both koalas had obvious sternal glands.

Moreover, the large male had ceased his pursuit of

the smaller male and had retired to a nearby tree. Apparently the crying sound made by the younger animal had convinced the elder that he was in no threat.

We sometimes hear a similar crying sound when we attempt to catch or after we release a koala. It's a pitiful sound like that of a crying baby and we interpret it as being a sigh of distress. Consequently, we call off the catch if we can't complete it quickly. It's reassuring, however, to know that healthy koalas make the sound as part of their daily lives and may merely mean "Leave me alone, I'm not about to die!"

If you see a koala, particularly one with a snow-white unblemished chest, please let us know on the UWS koala pager 9962 9996.

- Dr Robert Chase

Turtles that go walkabout

RECENTLY we stopped to rescue a small turtle that was trying to cross the Northern Road near Harrington Park.

But before we go any further, let's sort out the turtle/tortoise question.

The Australian Museum declares that the term "tortoise" is now reserved for those species that are entirely land-based.

All the Australian species live most of their lives in water, so are all turtles. The one we rescued was the Long-necked (or Snake-necked turtle), *Chelodina longicollis*. These reptiles live in rivers, creeks and in farm dams, which when drained can expose 30 or more turtles per dam.

They are carnivores, and eat fish, yabbies and other crustaceans and a variety of insects and other invertebrates. They seem to be the cleaners of the water-bodies, disposing of anything that dies.

The females lay a clutch of about 10 eggs in the bank of the creek or dam but, unfortunately, foxes find most of them.

From time to time and particularly after rains some of the turtles in each dam decide to plod off into the unknown and find another home.

We know little about this migration; for example, do all 30 in a dam head off together? Is there a pattern of

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dispersal? How far do they travel? Do they come back to their original home?

A UWS student has recently commenced a study to answer these questions about turtles in farm dams.

She will trap, weigh, measure and release as many turtles as she can catch from the farm dams of the Hawkesbury campus. Before releasing them she will mark the scutes, which are the segments on the very edge of the shell, so that each turtle will have a distinctive pattern of marks.

She will then hope to trap them again in another dam after they have made their move.

If none of them moves, or if all the movers are looking for rivers, the student may have some difficulties. But any research involving native animals in the wild is always a bit risky.

When we first started our koala research we were afraid that the numbers of local koalas would be too low to provide sufficient information.

Fortunately, plenty of local people have rung the UWS pager 9962 9996 to report sightings.

— Dr Robert Close

Plea for help with a colony

A LAND-CARE group near Tarlo National Park in the Southern Highlands has asked for advice about establishing a koala colony in an area which it is revegetating.

Historically, the area supported koalas and the group would like to see them living there again.

Most members of the group own land near the national park and they are planting trees to restore bushland and make corridors for animals moving to or from the park.

There are koalas at Canyonleigh, 30 kilometres to the east of Tarlo, so they may eventually recolonise the park under their own steam.

This natural process, however, like the group's own plantings, could take many years, so the members of the group were wondering whether they could speed up the process by introducing koalas from healthy colonies elsewhere.

They had immediately thought of introducing koalas from Kangaroo Island in South Australia, where the numbers are so high that the trees are being seriously damaged. Unfortunately, as we've mentioned in previous columns, bringing in koalas from vastly different areas is not wise, because they are likely to be adapted to different conditions, parasites and food sources.

Moreover, southern koalas are substantially larger than those of NSW and, in addition to this, are so inbred that

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testicular abnormalities are common.

Our first response was to advise the group to wait for natural migration to re-establish the local koala population. However, it later occurred to us that maybe we could combine some useful research with a limited experimental release at Tarlo of two young radio-collared Campbelltown koalas.

We know that probably 100 cubs join the Campbelltown colony each year while the parents live to at least 14 years of age, so moving two three- to four-year-olds will have little effect on the colony.

On the other hand, setting up an alternate colony would be a valuable reserve in case of the loss of the Campbelltown colony from fire.

And by radio-tracking the two released animals we can test the assumption that Tarlo contains suitable habitat for breeding.

If, after two months at Tarlo the pair have lost condition, they could then be returned to Campbelltown.

We are still at the thinking stage for this plan and a lot of barriers must be crossed before it could be activated.

If anyone would like to comment, ring the UWS koala hot-line 9962 9996 or email r.close@uws.edu.au.

- Dr Robert Close

More dogs mean more koala deaths

By Dr Robert Close

WHEN the pager rang at 5am we knew something serious was up.

And so it was. The message read: "ring re an injured koala urgently."

On locating the caller's property at Kentlya we discovered a young, untagged male koala, about 5 years old, with his left arm shredded to broken bones and almost severed. He died soon afterwards from the horrific wounds that had been inflicted by two rottweilers in the garden of the caller.

To her great credit, the caller had done everything right.

That is, she had investigated the barking of the dogs as soon as she had heard a commotion and pulled them off even though she was scratched by the koala in the process.

She had then immediately called us.

Another person might have taken the easy way out by letting the dogs finish the job and then quietly burying the body.

Thanks to the caller's honesty we were at least able to gain more information on the movements of male koalas, the causes of

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mortality in Campbelltown's young koalas and the ages at which they are vulnerable to dogs. As the koala population builds up, as it is doing, and as more homes are built in Campbelltown's bushland fringe, we can expect more such deaths if residents allow large dogs to roam their properties at night.

This is the paradox of bushland living.

On the one hand residents have the solitude of the bush but on the other hand they miss the neighbourhood-watch aspect of living in the suburbs and some feel safer with big dogs as protection.

However, with the dogs comes the likelihood of a koala-killing.

Perhaps dog-owners should consider confining their dogs or fitting them with muzzles at night.

New residents should consider having smaller dogs or a different form of security.

Call the UWS koala pager 9962 9996 to report any koala sightings.

Golly, Miss Molly's sure been around

WE'VE always asked community members to report koala sightings and now we've had about 2000 sightings reported.

Many of these reports have included details of eartag colours that have enabled us to identify the individual koala and so learn about its movements and longevity.

Recently, however, there was a twist when a bushwalker spotted a koala at Wedderburn. He didn't notice eartags at the time but when he examined a digital photograph that he'd taken he discovered that the colours of the two eartags could be clearly recognised.

He sent us the photographs and we were able to recognise the koala as Molly, one of our oldest females and one who has been the focus of many Mac Koala columns.

We'd tagged her way back in 1994 when she was two years old, after she'd been rescued from a backyard in Ruse.

At that time we thought that Wedderburn would have been a better place for a young female koala than Ruse so we moved her there and released her with a radio collar to follow her progress.

A few months later we found her sitting forlornly in a tree with a broken thigh.

We took Molly to an experienced animal

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By Dr Robert Close

carer who looked after her till the leg healed. After eight weeks she was ready to return to the bush.

She thrived and later featured in a video *Koala Tales*, that we made about Campbelltown koalas.

Unfortunately after a couple of years she lost her collar.

We've seen her occasionally since but have been unable to catch her or not had a collar available, so it was great to know that at 14 years of age she's still going strong.

We know that Molly's had two cubs - Gaylene, tagged in 1997 and Danny, tagged in 2000 - and possibly three or four others.

Gaylene is probably a grandmother by now with potentially six cubs of her own, so Molly's total reproductive output has probably been quite large.

We always finish the column with a plea for people to report sightings to us on the IWS koala pager 9962 9996. We can now add a request for a digital photograph.



Franceska's heir, Mac Koala, wants you to keep a look out for new koala cub Pam.

Thief targets gear and Tarago van

By Dr Robert Close

WHEN we set out to attempt to capture a koala we need to carry a lot of gear, particularly if the animal is high in a tree.

First, there are our three telescoping poles to which we attach flags to wave above the koala's head to drive it down the tree.

The longest of these poles extends from four metres to more than 10. Then we have a 20-metre wire-rope climbing ladder, climbing harnesses, a 60-metre rope, scales, callipers, DNA collection kit, ear-tagging kit, hard hats, gloves, bags and smaller ropes.

We cart all this gear in my early-model Tarago van which, besides being spacious, has the advantage of having good clearance and sturdiness for bush trails.

It is also useful for carrying pupils on field work.

Unfortunately, someone stole the van from Leumeah station last Tuesday. This is a major blow to our research program.

It occurred to us, however, that we could employ the same, very successful method of community help that we use to discover new koalas and follow the movements of tagged ones to locate the stolen van.

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That is, we are asking all readers of the column to look closely at any old Tarago vans that you see and ring the pager number (below) if you spot mine.

Just as our tagged koalas are individually recognisable by the coloured tags so, too, is the van is by its general beige colour and distinctive diagonal brown and yellow stripes on the rear side panels. The numberplate is AAJ 6E0.

On a more normal topic we captured Franceska (aged 14) at Wedderburn last week to change her radio-collar and to catch her newly weaned cub that we wanted to ear-tag before it left its mother.

We discovered that the cub was a female and named her Pam in honour of one of the supporters of our studies.

We hope that Pam, with her new eartags, will live a long and productive life and will be seen and reported regularly by community members.

We ask anyone sighting her (or our van) to ring the UWS koala pager, 9602 8996.

Perhaps the van went over the cliff

By Dr Robert Close

SADLY, our method of locating koalas by relying on the community to report sightings on the koala pager did not work to locate my stolen Tarago van.

As I reported last week, I used the old van to carry the gear needed for our research on koalas. Unfortunately, only one caller rang to report a van and that was a false alarm.

Many people, myself included, become nostalgic about old cars that have served them well and that have taken them on many of life's adventures.

That was certainly the case for the van's predecessor, an old blue Valiant regal which was my field vehicle for the first five years of our koala research.

Its crankshaft eventually wore out and I sold the car to a person intending to transform the front half into a Charger. It's somehow reassuring to think whenever I see a Valiant Charger that perhaps it's my faithful old Val. With the van, however, I imagine it at the end of some lonely fire trail, burnt out and rusting.

Unfortunately, many of our beautiful, bushland areas are spoiled by such abandoned vehicles. Because our team spends so much time radio-tracking in the Campbelltown bush we know many of the favourite fire trails used for dumping stolen vehicles.

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One such place, at St Helens Park, occurs where a fire trail leads to a 40-metre sheer cliff overlooking the Georges River.

Soulless people have pushed many vehicles over the edge into the gorge below where they are impossible to retrieve and are slowly decomposing and polluting the river in the process.

Our radio-collared koala, Elle, has looked down on this particular site of vandalism for the past 10 years and during that time has seen many such abuses of her territory.

She also survived a fire that swept up out of the gorge after a car went over the cliff.

On a happier note, a koala was seen last Friday only 20 metres from Appin Road in one of the spotted gums that line the road 2.5 kilometres south of Rosemeadow.

This section of road has koala warning signs and we advise people to be on the alert for small, grey shapes on the road.

We've noted that the koalas seen along Appin Road are often seen over several nights.

Most are young, dispersing males and are not familiar with the area.

Please report sightings on the UWS koala pager, 9962 9996.

Tracked with radio-collars

By Dr Robert Clese

BRAD Purcell is a PhD student from UWS who is studying how dingoes and dogs live and move in the Warragamba catchment.

Several government bodies are interested in this information because of health and livestock issues, and Brad has set up a fascinating study.

A spin-off is that Brad is able to work in a beautiful area of huge, scenic cliff-lines and rolling woodland where wombats, grey kangaroos, red-necked wallabies and swamp wallabies are abundant.

Last weekend, I had the good fortune to accompany Brad to see how he fitted radio-collars to his research animals so that he can follow their movements. He uses light-weight collars that carry two important gadgets.

The first tracks the animal's position by taking readings from satellites, and storing the co-ordinates and time. On a given date the collar opens and falls to the ground.

The second system is a transmitter that, hopefully, will allow Brad to locate the fallen collar.

Recently he had an early opportunity to preview some of his data when one of the collars fell prematurely. Fortunately, he was able to locate it, and has now successfully down-loaded and mapped his location co-ordinates. Because the animal's position

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was recorded three times in every 24-hours for several months, the map of all the recorded locations is very complex, and will keep Brad busy for months.

When all the other collars are collected he will have a marvellous view of how the various packs operate in the area.

We would love to be able to use such a collar for tracking our koalas, but at 250 grams the load is too great for an eight- to 10-kilogram koala. By contrast, our collars weigh about 60 grams. There is also a small matter of cost: \$2500 as compared to \$400. On the other hand, our two-weekly tracking provides different information, such as the health and reproductive condition of the koalas and the species on which they are feeding.

On another matter, I will be talking to the Macarthur branch of the National Parks Association on Wednesday, April 12, at the Campbelltown North Primary School at 7.30pm about the proposal to translocate a pair of Campbelltown koalas to Tarlo River National Park. All are welcome to attend.

Please report sightings on the UWS koala pager, 9962 9996.

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Columnist ties the knot in the Harbour

By Dr Robert Close

MANY readers of this column will remember Steven Ward whose studies for his PhD on Campbelltown's koalas changed a part-time research interest into the community-based program that we have today.

Steven was the principal author of *Mac Koala* from its start until he finished his thesis in 2002. That thesis can be read at Campbelltown Library.

Steven is now working for an environmental consulting company in southern Sydney where his experience in the ecology of the area has been a great benefit.

Last Sunday, however, ecological studies were the last thing on his mind when he married Karen Hodgkinson on "The Penguin" as it sailed around Sydney Harbour. It was a simple and sunny ceremony and I'm sure that everyone who has worked with Steven or read his koala columns will wish him and Karen a long and happy life together.

Since Steven left us, the field work for the koala studies has been conducted by volunteers Lynn, Mick and Wendy.

This work has included taking special visitors to Campbelltown to see our radio-collared koalas in the bush.

Wendy recently led a group of 15 Japanese junior-high students from Campbelltown's sister city Koshigaya to visit koala, Lyn, at

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Kentlyn. The students were delighted to be able to see and photograph a koala in the wild.

Wendy and Mick also responded last week to a pager call reporting a dead koala at Mount Hunter. This was the first report of a koala from this area and we were keen to verify it.

Alas, close inspection revealed a large grey cat. It's uncanny how closely a dead, gassy grey cat can resemble a koala and this was our fourth such false alarm.

Nevertheless, despite the disappointment, we would rather have the occasional false alarm than miss out on an actual record.

■ I remind readers that I will be discussing tonight (April 12) the pros and cons of a possible translocation of a pair of young koalas to the Tarlo River National Park in the Southern Highlands. The venue will be the North Campbelltown Primary School at the monthly meeting of the Macarthur branch of the National Parks Association. The meeting starts at 7.30pm and the talk will be at about 8.15pm

Please report sightings on the UWS koala pager, 9962 9996, but check road kills carefully if it is safe to do so.

Make no bones about missing link

By Dr Robert Close

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RECENTLY, a letter came to me from a minister of religion.

He had been reading literature criticising the Theory of Evolution, and was seeking clarification of the statement that there were no "undisputed missing links in the fossil record".

A "missing link" is a presumed ancestor of a new, distinct line of organisms at the time of divergence from an existing line. A famous example, often cited as a missing link between dinosaurs and birds is Archaeopteryx, a fossil that clearly shows the feathers, wings and wishbone of a bird, but the teeth and long bony tail of a reptile.

However, while Archaeopteryx was a primitive bird with some reptilian features, it is unlikely to have been the missing link between the reptiles and birds. Modern birds are descended from something that would have been similar to Archaeopteryx but we cannot be sure that it was the ancestor.

Many different evolutionary lines, now extinct, are likely to have branched off from the actual link, and Archaeopteryx may be one of them. So although there are no undisputed missing links, there are many transitional forms.

The Theory of Evolution requires that missing links did occur and allows predic-

tions to be made that some will be discovered in the fossil record. Right on cue, the day after the minister's letter arrived, an exciting fossil find was announced that could be a missing link between fish and land-dwelling vertebrate animals.

The latter are known as tetrapods (four feet) and include mammals, amphibians, reptiles and birds. All share a particular bone structure in the fore-limbs that has developed into a wide variety of forms such as the wings of birds and bats, the fins of whales and the hands of humans and koalas.

The new fossil, a crocodile-like fish named Tiktaalik roseae, was found on an Arctic island and is believed to have lived 300 million years ago.

It has the scales, fins and jaw of a fish but the ribs, neck and flat head of a primitive amphibian. Most notably, however, its fins consist of bones that are similar to the tetrapod wrist.

It is clearly a transitional form from the line of fish that made the major evolutionary move from the water to land and may well be the missing link.

Remember the UWS koala pager 9962 9996 to report koala sightings.

Road a wildlife treasure trove

By Dr Robert Close

THE Campbelltown to Appin road is famous for its spotted gum and Ironbark forest which forms a spectacular avenue for kilometres.

The spotted-gum population is a major one and significant because of its scarcity elsewhere in the Sydney Basin.

This section of road also marks the watershed between Sydney's largest rivers, the Georges and the Nepean.

Continuous bushland links Appin Road to the Georges River, one kilometre to the east, and via vegetated creeklines to the Nepean River, four kilometres to the west.

These connections form a wildlife corridor which allows animals to travel between the two river systems.

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The protection and food supplies afforded by the continuous riverside vegetation then allow animals to move across the Sydney Basin where they can replenish or renew depleted populations.

So what sort of animals might use the corridor? Koalas certainly do, and we have mentioned before in this column that a koala, Dan, which we ear-tagged at Kentyn, was recaptured beside Appin Road and later at Douglas Park on the Nepean River!

We suspect that koalas will regularly cross into the Nepean catchment.

Two years ago I bet Alan Powell, education officer at Mount Annan Botanic Garden, that

koalas would arrive at the garden via the Nepean River within 10 years.

Other mammal species that might use the corridor are likely to be those of the sort being hit by cars on Appin Road.

So far, we have recorded koalas, wombats and echidnas, and today I noticed two dead wallaroos, a male and a female, about one kilometre apart.

Wallaroos are big. The charcoal-coloured males weigh up to 50 kilograms. The ash-grey females are often mistaken for grey kangaroos. Wallaroos seem to be on the increase in the district, and a caller notified us of three at Menangle and another at Douglas Park in the past six weeks.

Report native mammal roadkills on Appin Road, 9962 9996.

Spotters' confusion is now sorted out

By Dr Robert Close

A MEDIA release was published last week by the NSW Department of Environment and Conservation encouraging the community and local councils to become involved in a state-wide survey of koala populations.

The article stated that the State Government is contributing \$230,000 for the study and will ask its federal counterpart to match the funding.

Residents were urged to report any koala sightings and a telephone number was supplied. As a result of the release, several people have asked us whether they should be reporting sightings to the DEC telephone number or continue to use the UWS koala hotline. Others rang to ask whether any of the \$230,000 would be available for Campbelltown research.

To seek answers to these questions, I rang the DEC and spoke to the project leader, Dan Lunney.

Dan replied that the survey was a requirement of the state Recovery Plan for koalas, was not a telephone call-in survey and would in no way clash with our program. The state-wide project, in fact, will be a huge postal survey and include questions on 10 species of mammals with the koala as the flagship species.

Two-hundred thousand survey forms (reply-paid) will be distributed in a statistically appropriate way to residents in 320

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postcode districts. The aim of the survey is to gain a snapshot view of the current extent of the koala distribution in NSW.

The results will enable Dan to determine any changes that have occurred since his last state-wide survey conducted in 1986-87. As a result of that survey Dan received notification of koala sightings from 118 of the 251 postcode districts from which survey sheets were returned.

The new survey will also provide Dan with information on the importance of known populations such as our Campbelltown one.

It will also allow him to calibrate his survey.

That is, we know the size of our koala population and Dan can then relate that to the response he receives from Campbelltown.

It will also be interesting to see if the number of call-ins to our pager number increase or decrease during the survey mail-out.

The publicity may prompt recipients of the survey to go out looking.

However, it is important that all sightings of koalas be reported to us on the UWS koala pager 9962 9996 by all residents including those who receive survey forms.

We will be communicating with Dan during the survey.

Macarthur Heritage lectures on what's in our wild surroundings

By Dr Robert Close

THE common theme of most of our *Mac Koala* columns has been that our two rivers, the Georges and the Nepean, with their associated woodland and rich flora and fauna are major features and resources for the Campbelltown region and must be preserved.

Our koalas are just one of a multitude of fascinating organisms in this bushland, many of which are being studied by other researchers.

Members of the community are invited to hear some of these researchers talk about their interests at the forthcoming inaugural 2006 Macarthur Heritage Lecture Series which is organised by the Macarthur Branch of the National Parks Association in partnership with the University of Western Sydney.

The first meeting will be on June 7, when Alan Leishman, a well known and internationally recognised ornithologist, will speak.

Alan has been conducting bird surveys in areas which include bushland beside Appin Road and also in Mt Annan Botanic Garden since its inception. The title of his talk is "Birds of the Macarthur region - Looking Back to Look Forward".

On July 12, Dr Ann Young, formerly senior lecturer in Geosciences at Wollongong University, will talk on

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"Upland swamps and their role in regional hydrology".

These swamps act like gigantic sponges and release water evenly through the year into the upper tributaries of the Georges River and thereby sustain life along the lower parts of the river.

These first two lectures will be held at the University of Western Sydney, Macarthur Campus, lecture room 4, in Building 9. The following two lectures will be held at the Campbelltown Art Centre, Gallery Road, Campbelltown.

On July 27 Alan Fairley, noted author and expert on plants of the Sydney area, will discuss "Rare plants and plant communities of the Macarthur region".

Alan is well known for having co-authored a marvellous book giving descriptions and photos of plants of the Sydney basin.

On August 9, I will give the final talk of the series for 2006: "Mammals of the Macarthur region: what's out there and what can we do about it?"

So the series should be of great interest to all readers of this column. Mark the dates in your diaries now.

Report koala sightings on our UWS koala pager number, 9962 9996.

Natural balance demands respect

By Dr Robert Close

THE phantom chook dumper has struck again!

Members of our research team were called into action last week for the second time to catch four fowl that had been dumped near the Wedderburn causeway.

Fortunately the chooks were tame and were easily captured and are now in a new home. On the general list of human abuses of the Campbelltown bushland, chook dumping rates fairly low.

By contrast, the dumped cats, dogs and reptiles that we have also found at the causeway have the potential to cause much more damage to natural environment.

However, what the animal dumping indicates is a complete lack of understanding of animals and the bush. Presumably the chooks' former owners were unable, for some reason, to continue to look after them, and so imagined that they would be able to peck out a happy existence in glorious freedom by the river in *Free Willy* style.

The most likely outcome, however, for the four chooks would have been a slow death by starvation or a quick one by fox attack.

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It's this same lack of appreciation of how our bushland functions that leads to the dumping of household and building rubbish and garden waste.

A more subtle and widespread misunderstanding, however, is for the importance of fallen timber. People often go collecting dead timber from the bush to supply their wood heaters without realising that they are affecting the habitat of many animal, fungal and bacterial species by removing their protection from the weather and predators and reducing the available nutrients.

Local ornithologist Michael Paul tells me that studies have shown that where the ground layer is undisturbed there are increased numbers of birds.

Alan Lelshman, no doubt, will tell us more about this topic in his special talk on "Birds of the Macarthur region - looking back to look forward" at the first of the Macarthur Heritage Lecture series at UWS at 7pm on June 7.

Don't forget to report koala sightings on the UWS koala pager 9962 9996.

More weekly columns on page 26.

Nathan sadly off to gum trees in heaven

By Dr Robert Close

IN August 2001, a young lad called Nathan spotted a koala in a tree beside Wedderburn Road.

Nathan was keen to exercise his spotter's naming rights, so was disappointed when we were unable to catch the koala.

A few nights later, however, we were again called out to Wedderburn Road and this time captured the koala; so we named him Nathan to make up for the previous disappointment.

The koala was a big fellow weighing in at 11 kilograms, probably about eight years old.

At that time we had no koalas with radio-collars in the Wedderburn Gorge/Spring Creek area, so we fitted Nathan with a radio-transmitter.

We wanted to discover whether his territory included sections of a large area of bushland at St Helens Park that was earmarked for housing development.

As it turned out, Nathan did occasionally visit the development site and he also led us to female koalas living in Spring Creek.

Nathan's data was eventually presented in the Land and Environment Court, where Campbelltown Council successfully opposed the development.

So it was a sad day last week when Bradbury vets rang to say that an injured koala with Nathan's eartags had been brought in from St Helens Park, but had died in their arms. We found that although his coat was in good condition he weighed only

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'Nathan's data was eventually presented in the Land and Environment Court where council successfully opposed the development'

seven kilograms and was just skin and bones. Moreover, he had ulcers on his feet and ears. A post-mortem showed that although other organs looked fine, his stomach was completely empty and the four metres of intestine, caecum and upper colon were almost empty, too.

That emptiness alone would account for more than two kilograms of his severe weight loss. The lower colon, however, contained many faecal pellets indicating that he'd last eaten about four days ago.

So we concluded that for some reason, perhaps just old age, Nathan had become too weak to climb and had probably sat on the ground until dying of starvation or thirst.

So it was a sad end for Nathan, but no doubt he fathered many young cubs during his 14 years to continue his influence.

Our thanks go to Rob and Glenda for his initial sighting and help with his capture, and to all the people who have called us to report his movements over the years.

Don't forget to report koala sightings on the UWS koala pager, 9962 9996.

Tracking dingoes now high-tech business

By Dr Robert Close

OJIR radio-tracking team was tested out recently when Lynn, Wendy and Mick were given the task of locating some radio-collars used to track dingoes.

These whiz-bang collars contained global positioning systems that recorded and stored the positions of the dingoes every three hours for 12 months. The collars were designed to drop off on May 16 and our trackers then had to locate them by following the signals sent out by a transmitter on each collar.

The dingo study, as I've reported before, is the PhD project of UWS student Brad Purcell and is conducted in the catchment area of Warragamba Dam, a wild paradise for kangaroos, wallabies and wombats. Brad had six collars due to drop off the dingoes and by the time our team arrived,

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Brad had already found three of them. The task was made easier, fortunately, by the NPWS helicopter which took Brad aloft with tracking equipment, and he was able to provide approximate locations for two of the remaining collars. The final one had vanished completely.

So our trackers set off on foot and discovered that one of the signals was moving, indicating that the collar had not opened properly and was still on the dingo. It will probably fall eventually and Brad has high hopes of finding it.

At a cost of \$5000, it's worth a good search.

Following a very weak signal that regularly disappeared, we set off after the second collar along a long spur that led down into a rugged valley. Here, Wendy spotted six tiny, mouse-like

animals cavorting in the spaces between the living, outer bark and the exposed dead inner wood of a tree. They were the insect-eating marsupial *Antechinus* and to see them chasing each other and playing peek-a-boo in the sun was a once-in-a-lifetime experience.

Usually, *Antechinus* are nocturnal and live in cracks in rocks so are seldom seen. After watching their games for several minutes, we tore ourselves away and followed the elusive signal as it bounced from cliff to cliff and gully to gully.

Eventually, the signal grew stronger and to our great delight, we finally found the collar a few metres from the valley floor.

Don't forget to visit us at Riverfest at Keshigaya Park on Sunday and the first Environmental Heritage lecture at UWS on June 7 in building 9 at 7pm. Our pager number is 9962 9996.

Antechinus brings great appeal

By Dr Robert Close

RIVERREST on Sunday was a great success.

The weather was kind to the many stallholders who provided information on living with our two rivers and the bushland they support.

Other stalls on the day and entertainment of a cultural nature demonstrated the rich mixture of people who live in our area.

Children had a great day exploring the environment through activities provided by many of the stalls.

Our koala stall was besieged by people of all ages who wanted to know about our koala colony.

Most people on looking at the map of sightings were surprised to see how close to suburban housing most of our known animals live. Some reside three kilometres from Campbelltown station.

I wonder, however, whether people would be equally interested to know that another fascinating marsupial lives in the same area as the koalas.

That marsupial is the Antechinus, which I mentioned in last week's column. This tiny brown predatory animal is from the same family as the Thylacine, the Tassie Devil and the Quolls. In some ways it is equally worthy of interest and concern as the koala.

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The reproductive life of an Antechinus is fascinating: all of those in a given region mate in the same two-week period in early spring.

It is an active fornight for the males, as they cease eating and concentrate solely on breeding.

Not surprisingly, this regime is bad for their health. In fact, it causes their immune system to fail and they fall victim to parasites and bacterial infections.

None survive the fornight.

Scientists are using Antechinuses to study the effect of stress hormones on the immune system.

Females suffer less over the fornight, some surviving for a second year.

Don't forget that Alan Leisman is talking about birds of the Macarthur region at UWS Campbelltown today at 7pm. The talk is in Building 9 and admission is by a gold coin donation. Park in carpark 6 and walk past Building 9 on 21, between Buildings 10 and 11, to find Building 9 on your left. It will be a great start to the lecture series.

Remember the koala pager 9962 9995 for reporting koala sightings.

The sorry tale of koalas near Sawtell

By Dr Robert Close

If you're searching for koalas in 40-metre high eucalypts, your neck suffers and you seek relief by regularly changing focus to the ground to look for the distinctive, koala faecal pellets.

After several hours of fruitless searching through the forest in this manner, your spirit dampens. After a week of failure your concentration fades.

But concentrate you must, otherwise the canopy becomes a green swirl in which you wouldn't notice an elephant let alone a small, dark blob that barely breaks the canopy pattern.

Some searchers have an uncanny ability to spot this discontinuity in the canopy, and I confess that I'm not one of them.

I suspect that these people would also be quick at solving jigsaw puzzles.

Last week, however, I saw even the best searchers in the field defeated.

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We were near Sawtell where the Pacific Highway traverses four kilometres of tall forest, investigating the effects on local koalas of road upgrading and the construction of special wildlife underpasses and overpasses.

On a previous expedition in 2000, we had sighted 26 koalas in the 500-metre strip on either side of the highway and put radio-collars on 15 of them. These 15 showed us that koalas had their own territories which extended to the very edge of the road.

Unfortunately, road construction was delayed and we had to remove the collars after collecting two year's worth of data.

On that first expedition our special spotters patrolled the fire trails and located an animal or two every morning.

The possible explanations for our failure this

year were firstly that the koalas had succumbed to some disease or old age or secondly that they had moved into the heart of their territories in thickly foliated gullies where visibility is almost nil.

The third option was that recent clearing on one side of the road and recent roadworks had scared the koalas into neighbouring forest.

Although we found skulls of two mature koalas, we think that the second option is most likely.

Our previous expedition was in August, which is the koala breeding season and a time when resident males and females are likely to be patrolling the edges of their territories and therefore be in the places most likely to be seen by humans.

We'll be testing this idea in August.

Contact the koala pager on 9962 9995 to report koala sightings.

Hotline: keep on trying

21/6/06

LAST week the incorrect pager number was published for our UWS koala hotline.

Perhaps as a result we had no calls this week - an unusual situation.

So if you called the hotline last week using the incorrect number, please call again on the correct number: 9962 9996.

When you call that number, a receptionist from Orange takes your name, telephone number and message and then rings our pager. The person knows nothing about koalas so don't be concerned if he or she does not seem as interested as you.

We have two pagers to help ensure that messages aren't missed.

Sometimes we don't receive the signal if we are in a concrete building.

Fortunately we also receive the message by email. So we should always receive your call eventually. We then respond as soon as we can.

■ We received a spate of calls recently from Long Point. Apparently a big development is planned there and residents are worried that bushland habitat will be damaged.

We could tell them that we have found one breeding female there so far and a young male, Constable John, was last seen there last year.

With a good number of eyes on the look-

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out at Long Point, we hope to hear about additional koala sightings.

Over the years we have successively discovered breeding females in Ruse, Kentlyn, Minto Heights and most recently, Long Point. Are we watching a slowly advancing front of breeding females or are we just hearing first reports of animals that have always been there?

■ Barry and Pat Durman from the Macarthur National Parks Association have been long-time supporters of our research.

Their most recent efforts on our behalf have been to make a marvellous video of one of our Wedderburn animals, Francheska, and her independent cub, Pam.

Set to suitable music, the video follows the two koalas as they interact. Later the video shows our team capturing the pair in order to change Fran's radio collar and to fit Pam with her unique ear tags.

Anyone wishing to purchase a copy and support our research should send a \$10 cheque to University of Western Sydney addressing it "Attention R. Close UWS Campbelltown, Locked Bag 1797 Penrith South, DC 1797."

Watch out for any fauna

By Dr Robert Close

NOORUMBA Reserve, on the southern edge of Rosemeadow, comprises 60 hectares of remnant Cumberland Plain Woodland containing 39 plant species of regional significance.

For the past year, a band of dedicated volunteers has been working from 8am to noon every second Saturday, clearing the reserve from widespread weeds.

The volunteers were organised by Susan Stevens who was employed by Campbelltown Council. Funding came from the Streamwatch program and as part of the activities, the volunteers would undertake testing of water quality in the reserve's dam on Menangle Creek that runs into the Nepean River.

Results of this testing can be seen on the Streamwatch website.

I wasn't as dedicated as the rest of

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the group, however, and took a few months off. Returning last Saturday, I was able to appreciate the months of weeding and cleaning up, combined with the effects of new fencing which has kept out cars and most trail bikes.

What was once a neglected and rubbish-affected area is now showing its fine potential.

It will be an area treasured by local residents and visitors alike.

Community bush and stream care groups such as the Noorumba volunteers are a key to protecting and maintaining our local bushland.

Three more groups will start next year. Two of these are in areas where we have had radio-collared koalas: Spring Creek in St Helen's Park and Shirley's unnamed creek at Ruse.

We hope that the weed clearing will

foster the natural growth of native plants that will preserve natural koala habitat.

The third is at Redfern Creek, Ingleburn.

We hope many residents, particularly locals, will respond to the call when these projects start.

■ The local koala scene has been rather quiet lately in the lull before the males start jostling for position in July. June's daughter (and Shirley's grand-daughter), Mishka, however, was seen this week near Kentlyn Primary School. Mishka is almost 18 months old and may be forced out on her own this August.

So motorists and dog-owners in that area should be especially watchful over the next few months.

Report any sightings on the UWS koala page, 9962 9998.

Swamps: learn to love 'em

By Dr Robert Cless

A FEW weeks ago, local "birdman" Alan Leishman delivered the first of four lectures in an Environmental Heritage series organised by the Macarthur National Parks Association in conjunction with the University of Western Sydney.

There was a good mix-up with everyone enjoying Alan's talk.

The second lecture will be held next Wednesday, July 12, 7pm, UWS, Building 9, Lecture Room 4.

Former University of Wollongong geosciences lecturer Dr Ann Young will speak about upland swamps and regional hydrology.

A stand commented that from a marketing point of view, the title is not likely to attract people who don't appreciate the qualities of

swamps, which is unfortunate because upland swamps are the lifeblood of the Georges and Woronora rivers.

They work like huge sponges, supplying water to the Georges River via O'Hares Creek, which supplies 70 per cent of the Georges River flows.

Moreover, this water is remarkably clear and unpolluted because it is fed by the near-pristine swamps.

The swamps are the reason we can still swim in the Georges River, downstream of where O'Hares Creek joins it at The Wash.

So we started thinking about more eye-catching titles. Perhaps "Jewels of the Georges" or "Crystal-clear creeks: thanks to upland swamps"

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might sound somewhat more appropriate. Ann's talk will describe how rivers tick and what threatens swamps.

Her summary for the talk states that in the late 1970s, after some years of good rainfall, the swamps were in excellent condition with high water tables and minimal shrub invasion.

However, the cutting of the F6 expressway through Macdenns Plains radically altered the local streams.

Moreover, prolonged drought has enabled shrubs to invade former areas of bogland.

We recognise the swamps as integral to the hydrology and ecological health of the Woronora Plateau and Nepean tributary headwaters.

Report koala sightings on the UWS kiosk page, 9562 9396.

Powerful owl on the prowl

By Dr Robert Close

If you live near the Campbelltown bush, listen carefully on still, clear nights because there are often interesting sounds to hear.

The male koala, of course, sounds like a pig doing battle with a chainsaw, but there is another call that must petrify with fear any tree-living animal that hears it.

"Hoo-hoo" comes from the powerful owl, the largest Australian owl, which is twice the size of the more common barn owl or boobook owl.

We've mentioned it before in this column but two recent sightings have raised our interest again, particularly as two of our radio-collared koalas have large pouch young that are just about ready to transfer to the mother's back.

At that stage the cub is vulnerable to the

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powerful owl and the right size for a meal (100-1000 grams).

During a recent sighting the owl had a magpie in its talons, indicating that the tree was a roosting spot, of which each pair of owls has several in their territories of 400-1500 hectares.

They drop indigestible parts (castings) of their prey from the roost trees, allowing researchers to discover what they are eating.

Consequently, if we could map all the roost trees in the Ruse/Kentlyn area we could discover whether the owls are preying on koalas.

We ask your help, therefore, in locating these sites: call the UWS pager to report any powerful owl (and koala) sightings - 9962 9996.

A recently published survey of powerful owl roost trees on the edge of Melbourne revealed the birds are feeding almost entirely on tree-living marsupials.

The remaining 1 per cent were other birds.

However, other studies have found that they will also take more birds and fruit bats if the possums and gliders are less abundant.

Powerful owls nest in large tree hollows at least 15 metres high and 150 years old.

We are fortunate that our bushland supports enough arboreal animals to provide food for a pair of these large owls. I'll be happy, however, if we don't find koala in the castings.

Remember the talk at UWS on the incredible upland swamps of Macarthur: building 9, 7pm, tonight (July 12).

Flossie's on her way

By Dr Robert Close

AS if to illustrate last week's warning for residents to keep a watch out for young koalas wandering into the suburbs, a koala was reported in a front garden in Denison Avenue, Ruse.

We felt that it was too risky to attempt a difficult catch at night so left it until the following morning.

We were worried, however, because a chorus of barking warned us that many houses in the street had dogs and the chances of this koala encountering one was high.

Fortunately, the koala stayed in the tree all night and as luck would have it, that same morning a professional climber, Bill Proctor from Safety Access and Rescue, came out to teach us safe and effective climbing techniques.

Previously, we were self-taught climbers and our techniques left a lot

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to be desired. So it was a perfect opportunity for Bill to demonstrate his skills and for him to appreciate what skills and equipment we would need.

Within a few minutes, Bill was high in the tree and the koala was scampering down it and into our catching bag.

The koala was a two-year-old female in beautiful condition, and was named "Flossie" by the original reporter.

Flossie's pouch was empty, but this spring should be her first breeding time.

We gave her a pair of individual eartags and a radio-collar and released her in the bush. So far she has kept away from the houses, but we still remind dog owners to investigate unusual barking immediately.

After releasing Flossie we continued

our climbing training in the Georges River Reserve. No sooner had we arrived at the designated spot than we found another koala in a tall, slender blackbutt.

This time, however, rather than climb we decided to use the trap to catch the koala in the evening.

So all day, while we laboured up and down trees learning how to use ropes, knots, ascenders and descenders, we were watched from above by a small grey shape.

At 1.15 am the grey shape descended the tree and entered the trap. He was a young male of about 18 months and we named him Maxmus because of his gladiatorial spirit.

He's now sporting a swanky set of eartags and is off on his travels.

Please report his movements on the UWS pager 9962 9996.

Take note of sightings

By Dr Robert Close

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AS EXPECTED, there has been an increase in koala sightings in July as the males jockey for the best areas.

As usual, the main places for sightings were Georges River Road and near the causeway over the Georges River.

One of the sightings was of a large, untagged male not far from Kentlyn Primary School.

We ask people who spot koalas to take special note of the animals because sometimes the koala moves on before we can check it and we appreciate the following information:

- Is it ear-tagged and if so, what colour is in each ear?
- Does it have a cub on the back or a bulge in the pouch?
- Does it have a brown greasy patch the size of a 50-cent piece in the middle of its white chest? This patch

is a scent gland that the male koalas use to mark their territories.

- Is the animal large or small?
- Is it ashy-grey or does the fur look brownish? The latter indicates poor condition.
- What height and sort of tree (smooth or rough-barked) is it in; and lastly, what is the precise location (note landmarks or house numbers)?

A few weeks ago, we reported the death of Nathan, an old male who we originally captured at Wedderburn Gorge, exactly where one of this week's sightings was recorded.

We assumed that he'd died of old age because his post-mortem revealed nothing unusual. So we were interested to examine his skull which I prepared this week.

The wear and tear on the teeth were as expected for a 14-year-old, but the cusps were still sufficiently sharp to have allowed him a few more years.

However, there was a four-millimetre hole in the lower jaw beneath the molars packed solid with leafy material.

A sharp stem probably originally penetrated the gum and set up an infection that gradually ate away the bone. This would have been so excruciatingly painful that Nathan would have slowly starved to death.

On a brighter note, the third of the Environmental Heritage lectures will be held on Thursday, July 27, at Campbelltown Arts Centre, at 7pm.

The speaker will be Alan Fairley, co-author of the book, *Native Plants of the Sydney District*. Don't miss it.

And please don't forget the UWS koala pager, 9962 9996.

Cubs go to school

By Dr Robert Close

STUDENTS at Kentlyn Primary School are accustomed to seeing koalas in the playground.

First there was Lyn and her son Kent back in 1996. They stayed until Shirley's daughter June arrived from a kilometre down the road in 2002.

Lyn had to move across the road, where she still resides, while June, in consecutive years, produced three daughters, Shy, Vicki and Mishka.

Vicki appeared in the playground last week with her new cub, which will remain unnamed until we catch it and fit it with ear tags. At present the cub is too young.

We suspect Vicki and her new cub will move away from her mother's territory, as June did from Shirley's.

This will place Vicki in unfamiliar ground and may make her more vulnerable to cars and dogs, so we ask residents and motorists in the area to be vigilant.

■ At last week's Macarthur Heritage lecture, hosted by the Campbelltown Arts Centre and organised by the Macarthur National Parks Association, plant expert Alan Fairley presented a fascinating illustrated talk on rare plants of the Macarthur region.

It was amazing how many beautiful and vulnerable plants are found in tiny,

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isolated patches of our bushland.

On Wednesday, August 9, I will be presenting the final lecture of the heritage series at the Campbelltown Arts Centre at 7pm. I will be talking about the many other native mammals besides koalas that are found or have been found in the Macarthur region.

We are incredibly fortunate that our Macarthur bushland is connected to the Holsworthy area and the Heathcote and Royal National Parks to the east

and to the Cataract, Cordeaux and Avon water catchment areas and Moreton National Park to the south.

Much of this huge area has been sealed off from the public and has not been thoroughly studied.

In my talk I will discuss the likelihood that the species previously discovered in the area, such as the spotted tail quoll or the brush-tailed rock wallaby, are still living somewhere out there in the bush and what we can do to find, identify and protect them.

1982-1998



Just lounging around: Vicki and her unnamed cub enjoy the surroundings in Kentlyn Public School's playground.

Journey into the unknown

By Dr Robert Close

WHILE preparing my talk, *Mammals of the Macarthur region*, for the last of the 2006 series of Environmental Heritage lectures tomorrow, I read about a fascinating expedition of discovery in the Macarthur region.

An expedition member was the first person to record the existence of the koala, wombat and lyrebird in the area and also noted the brushtailed rock wallaby and a species of native rat.

A motley crew set off from Liverpool on January 14, 1798, consisting of four Irish convicts, four soldiers and three civilians.

Governor Hunter sponsored the trip, hoping to scotch a rumour that had spread through the Irish convict population that a kind of paradise existed 200 miles south-west of Sydney.

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Hunter's plan worked well because the convicts and the soldiers returned 10 days later heartily sick of the expedition.

However, the civilians pressed on, ably guided by ex-convict John Wilson, who had lived with Aboriginals.

By January 24, the party had left Mount Hunter and crossed the Nepean where they saw the rock wallabies with their "long black brush tails".

Two days later they saw what Wilson called a "whom-bett" and a koala "that the natives call a Cullawine".

They shot a lyrebird on the same day. The trio eventually reached a point near the junction of the Wollondilly and Wingopombee rivers about 30 kilometres west of what is now Mittagong.

By the time they made it back to Sydney they had walked 240 miles (380 kilometres) in 28 days.

This was an amazing feat, given that it was mid-summer, their boots had disintegrated, their feet were lacerated and food was scarce. At one stage they had survived for two days only on "one rat the size of a small kitten".

Perhaps it was a water rat. If so, it would have had five times the meat that the other possibilities, the swamp and bush rat, would have provided.

■ My talk titled *Mammals of the Macarthur region* (tomorrow, August 9, at 7pm) is organised by the Macarthur National Parks Association, UWS, and hosted by the Campbelltown Art Centre. All welcome.

UWS koala page: 9642 8996

Those rare species

By Dr Robert Close

My AIM at the final presentation of the Environmental Heritage Lecture series held at the Campbelltown Arts Centre last week was to inform people of the current status of our knowledge about native terrestrial and arboreal mammals (not including bats) in the Macarthur region.

Species that are common in parts of the region include swamp wallabies, red-necked wallabies, grey kangaroos, wallaroos (hill kangaroos), wombats, koalas, ring-tailed and brush-tailed possums, sugar gliders, brown antechinuses (small, carnivorous marsupials), bush rats and echidnas.

Less common, but with recent records are platypuses, long-nosed bandicoots, spotted-tail quolls, squirrel gliders, greater gliders, feather-tailed gliders, pygmy possums, common dunnarts (small carnivorous marsupials), swamp rats, water rats and new holland mice.

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I would welcome information from the community on any of the species in this last category.

Contact me preferably by email (r.close@uws.edu.au) or by the pager number.

If you want to check the appearances of any of these species, simply Google the common names given above. In the very uncommon category are several species that I would dearly love information about.

A colony of brush-tailed rock wallabies has recently been discovered in the Warragamba catchment but we suspect they may still occur elsewhere along the Nepean River and its tributaries.

Another small wallaby has been reported in the Campbelltown area and this could be the potoroo or the red-necked pademelon.

These small wallabies will most likely

be detected as roadkills, so I would ask keen naturalists to keep their eyes open and their cameras at the ready.

Any adult wallaby that is the size of a large cat or smaller is sure to be a rare and important species.

In the category of probably extinct in the region is the eastern quoll, a carnivorous marsupial the size of a small cat, that was last recorded in the 1960s in Vaucluse. Also in this category is the short-nosed bandicoot, a small population of which survives on the north side of the harbour.

Considering that the bushland of the Macarthur region is connected to the protected areas of Holsworthy, Heathcote, Royal and Moreton National Parks and the catchment areas of the Cataract, Cordeaux, Avon and Warragamba dams and linked by the Georges and Nepean rivers, then there is a chance that the rarer species may still be surviving.

UWS koala pager: 9962 9996

Be mindful of them

By Dr Robert Close

THE young male koala almost made it across Appin Road to the safety of the spotted gum forest.

From there, he could have followed the narrow corridor of trees that line Woodhouse Creek to the Nepean River and to places and adventure beyond.

But it was not to be.

The pager had rung at 6.20am with the message "dead koala on Appin Road, ring Troy".

Troy then gave directions and I soon found the lonely body near a "koala crossing" warning sign.

His eartags showed that he was Robert, son of our radio-collared Elle who lives just upstream of the Wedderburn causeway.

We'd tagged Robert in November 2004 and estimated then that he was a little over a year old.

Two years later, his body weighed

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7.3 kilograms - about 3 kilograms short of the weight required to establish a permanent territory.

Consequently, he would have been forced to leave by a larger male but had travelled only 3 kilometres before the vehicle hit him.

This sad tale emphasises the hazards awaiting young koalas attempting to set up their own territories.

Flossie, of Ruse, is another young koala facing danger.

For several weeks now, she has been delighting and scaring residents of Denison Street by appearing in trees or on fences in house-hold gardens and risking death from the dogs and vehicles. Her latest exploits were followed by David Watters-Vincent, 8, a pupil at Kentlyn Primary School.

This school is regularly visited by koalas and the pupils can recognise all the signs.

Consequently, when David found some unusual droppings in his garden, he knew to scan the nearby trees.

Sure enough, he found Flossie high in a gum tree and then David's mother rang the koala pager.

The tree was too high to attempt a catch, however, so with some apprehension, we left Flossie there, hoping that later in the night she would not try to cross the nearby Junction Road.

At 2am, the pager rang to tell us that Flossie had joined party-goers in an adjacent street and was now in a small street tree looking very confused.

We were soon at the site, captured Flossie easily and released her in a safe, familiar woodland area.

However, she's likely to try again to enter the suburbs, so don't forget the UWS koala pager, 9962 9996.

They are vulnerable so be very mindful

By Dr Robert Close

LYNN was radio-tracking one of the koalas recently when she saw an unusual sight.

A largeish black and white bird, a currawong, was clearly distressed by a koala high in the tree.

Perhaps the koala was close to its nest and the currawong took the koala for a predator.

Currawongs make a flattish nest of sticks lined with grass and bark, 5 to 15 metres up in forks of leafy trees. This, of course, is exactly the sort of position favoured by koalas. So it's possible then that koalas may simply knock the nests unwittingly as they climb up and down. Little wonder then that the currawong was annoyed.

It was the action of the currawong, however, that really caught Lynn's interest.

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It was flying just above the koala's head and flapping its wings directly in the koala's face.

The koala responded by immediately climbing down the tree.

This response is exactly the same as the response we get when we use the pole and flag method of capturing koalas.

We flap the flag directly above the koala's head and the effect must be similar to the flapping of the currawong's wings.

Aboriginal hunters originally used a pole and flag method of capturing koalas and so it's quite likely that they developed the method by watching the birds.

As we've said before, young koalas start their adventure travels in August

and so face many dangers outside the safety of their mother's familiar area.

Last week, we recorded the collision of one young male with a car on Appin Road and this week, we were called to collect the body of another young male at Kentlyn.

The latter had been badly mauled by dogs but the dogs' owner thinks it likely that the koala may have been already dead from a car collision and the dogs had found the carcass.

We thank the dogs' owner for notifying us. Students at University of Western Sydney as part of their biology studies, will conduct a post-mortem to determine the cause of death.

Whatever the cause, the solution is clear: slow down at night, watch for dark shapes beside the road, keep your dogs locked up and investigate any unusual barking and call the UWS koala pager on **9962 9996**.

They're everywhere as mating season begins

By Dr Robert Close

KOALAS appeared on roads across Campbelltown last week as the mating period started in earnest.

First there was a large, untagged male that sat in the middle of the road on the Campbelltown side of Wedderburn Road and refused to move until a driver stopped and hustled him off.

Then there was Barney at St Helens Park who ventured into the housing area at 8am and a caller reported that she herded him 100 metres up the street to the safety of the bush beside Bullarton Crescent.

Barney normally appears in the grey gums beside Ironside Drive where he can bellow out over Spring Creek.

However, he made a similar incursion into the housing area this time last year and we think he was checking out the trees around the old St Helens

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Park House. People living near the house should scan the trees, it's just possible that there is a female koala living there.

Lastly, we were called to Sirius Street Road, where Flossie had again ventured into suburbia.

She is clearly under some pressure to move westward out of the bushland beside Peter Meadows Creek where we've been releasing her after her adventures on the streets.

Next time she appears, we'll have to move her further from danger.

We've been waiting on final approval from the National Parks and Wildlife Service to allow us to move a pair of young koalas to found a colony at Tarlo River National Park in the Southern Tablelands.

Regular readers of this column will

remember that we started organising this project back in February.

We're hoping that Flossie will be one of the founding pair because she fits the criteria: she's young, she hasn't established a home territory and she's currently in danger.

We are also about to begin an active search for a mate for Flossie.

When we find a suitable young mate, we'll fit him with a radio-collar and keep tabs on him until we hear about final approval for the project.

If granted, we'll recapture both young animals, have them medically checked, then release and radio-track them in an area of the National Park that we think is suitable habitat.

If approval is not granted, we'll remove their radio-collars and release them in the Campbelltown bush.

Call the UWS koala pager 9962 9996 to report a sighting.

Thefts a setback

13/9/06

By Dr Robert Close

OUR koala research began in 1990 when I received a pilot grant from the University of Western Sydney to employ a student to survey suitable koala habitat in the Campbelltown region and to buy a field vehicle for the student.

That field vehicle was not a rugged 4WD as you might expect but a 125cc Honda Ag-bike. Since then we've used the bike for radio-tracking our collared koalas and for checking the reported sightings of koalas.

It has served us valiantly, until last Friday when someone stole it.

This loss comes on the heels of the theft of my old van which I used to transport our koala-catching gear.

On that occasion, I asked for community help in finding the van. RTA records, however, showed that the van made a one-way trip into Sydney and vanished.

The Honda, however, is likely to remain locally, so a community watch may be more successful.

I would be grateful, therefore, if readers would watch out for a red Ag-bike, registration number ZXP63, and report it to the police on number (see below).

It can be distinguished from all other Ag-bikes by a greyish metal extension welded to the exhaust pipe.

It is ironic that our koala studies, which depend so much on local fauna and on

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operation from one section of the community, are undermined by another section of the community.

Besides the vehicle thefts, there are the continual removal of the koala warning signs (which also carry the pager number), vandalism of bush gates and fences, and all the other assaults on the bush such as arson, rubbish dumping and damage caused by vehicles.

Fortunately, we had a positive contribution last week to balance the negative when we were called to a garden in Kentville where a koala was seven metres up a slot eucalypt.

There were only two of us in the catching team so we conscripted Paul, the landowner, to man our eight-metre extension pole. This pole is very difficult to handle in interfering foliage particularly if held at the vertical.

The koala was difficult to climb athletically about the tree.

Paul persevered, however, and was eventually captured the animal, an undamaged female aged two years.

Now named Beaky, after Paul's dog, she is back in the bush.

Please report koala sightings (see above) to 5242 3775.

Campbelltown Macarthur Advertiser, Wednesday, September 20, 2006

Note:

No column published on this date

Stick insects need friends to survive

By Dr Robert Close

27/9/06

THE rarest creature in NSW is the endangered Lord Howe Island phasmid (stick insect), with the entire mainland population consisting of only one hatching and a few unmatched eggs.

This collection, in the care of local entomologist Stephen Fallenberg, originated from a colony of about 100 adults that live on a desolate rock pyramid near Lord Howe Island.

Stephen is desperate to regenerate a captive population as a standby in case the wild colony becomes extinct. So, he has formed a group called "Friends of the long-lost phasmid".

He needs a membership of 50 for the group to be viable.

Members will have the opportunity to learn more about this intriguing insect and take part in other entomological activities.

For more details, contact Stephen on 0419 696 691 or by email bugman@insectus.com

■ On the koala front, Flossie made her third assault on the suburb of Rose, moving along Dennison Street from September 13 to 17, stopping overnight in four garden eucalypts along the way.

She then moved into Sirius Street on the 18th and spent the 19th on the corner of

MAC KOALA

Macarthur Place and Greenway Street and was in front of 4 Macarthur Street on the 20th.

That night she made the perilous crossing of Junction Road and on the 21st was in the backyard of 1a Bent Place.

At this address she chose a tree small enough to allow a capture and so we removed her from direct danger and released her in Shidey's vacated area beside Georges River Road near Darling Road. She still has the wanderlust and at last sighting was near the road, so we ask people to watch carefully while driving.

Permission has finally come from NSW to allow us to move her to Tarlo River National Park.

So we are now looking for a young male, also in dispersal mode, to be her mate.

We are looking for a male about 2-4 years old who is not quite at his full size and not yet established in a territory of his own.

We thank everyone who assisted us in monitoring Flossie's travel and apologise for delays in answering paper calls (we had some technical difficulties).

Call the QWS page 5522 9556 to report any koala sightings.

Mum sticks up for cub

By Dr Robert Close

10/10/06

MAC KOALA

LAST Thursday a caller reported three koalas in the same tree near Kentlyn Public School.

We found a male koala asleep in a fork, guarding access to a female koala who was hanging precariously to a side branch. Then hanging grimly to his mother was the cub.

During the course of the day, the adults maintained their impasse, while the cub climbed up and down the tree in frustration. The male was untagged but the female was Vicki, second of Jane's three daughters and granddaughter of Shirley.

On the following day, students in the school heard a curious crying and discovered the cub beneath a tree in the school grounds. As the students approached, however, the cub raced up the tree to safety. Of Vicki and the male there was no sign.

The next day was Saturday, and with permission from the school, we searched the grounds with a group of advanced science students from UWS.

Within minutes the students had found Vicki and soon after discovered the cub in another tree about 15 metres away.

This was a good opportunity to capture the cub and give him identifying tags. To do this we had to climb his tree, wriggle him into a bag, then lower the bag to the ground.

The cub, however, put up quite a fight and squeaked his displeasure.

One of the students then whispered "Look at Vicki!"

She had courageously descended her tree in response to the cub's cries and was standing in a threatening posture not two metres from us.

This was the first time we had seen a mother actually come out of her tree in response to her cub's calls.

Previously they had descended to two metres and stayed just out of danger.

We took the opportunity to capture Vicki and found that she was in reasonable condition but weighed almost one kilogram less than she had at her previous capture.

Feeding a big cub apparently takes its toll.

After fitting the cub with ear tags we then released mother and son in the same tree. They climbed separately, but as soon as he could, the cub climbed on his mother's back with evident relief.

We hope you will help us follow his life by reporting sightings.

Call the UWS pager 9962 0996 to report any koala sightings.

Koala couple freed

11/10/06
By Dr Robert Close

MAC KOALA

FOR months we've reported our plans for releasing two young Campbelltown koalas in Tarlo River National Park.

This is a joint project with Sydney University, UWS and the Billyrambija Land Care group from the Southern Tablelands.

The latter group is planting corridors of koala food trees to link the National Park with the nearest bushland. UWS's role was to locate two young koalas that were in danger from suburban dogs and cars and to train a Sydney Uni masters student, Melissa Farrelly, in radio-tracking and koala handling techniques. She would track and monitor the released koalas.

After obtaining all the required permits we were finally ready to capture the koalas.

We had already radio-collared a suitable female, Flossie, who had visited many gardens in Ruse.

Finding a suitable male proved difficult; they were either too young or too old. The only reported males of suitable age had been killed by dogs or cars but we finally received a report of an untagged koala beside the baseball park on Kellerman Drive at St Helens Park.

We were delighted to find a male, three to four years old but not yet full-grown. He was promptly named Jeremy Jr by the original reporter.

We then recaptured Flossie and held her and Jeremy overnight before taking them to a Sydney University vet for a chlamydia test and a thorough physical.

Both passed, despite Flossie biting the vet, and they were soon at their new home.

At the release site, chosen because the common trees were their favourite food trees at Campbelltown, we found two adjacent trees around which we erected portable fences. The idea was to allow the koalas time to grow used to the surroundings and supply foliage from Campbelltown before removing the fence.

The plan worked well for the first night, but on the second Flossie broke out and moved 400 metres.

On the second night she moved into a eucalypt species that was unfamiliar to her but one that was known to be a koala food tree. On the third day, the Goulburn Mayor visited the site and symbolically opened Jeremy's fence and visited Flossie.

So now both animals are free.

Following their progress will be fascinating and we will report their experiences in this column.

Report any koala sightings: UWS pager, 9962 9956.

Fires spark fresh fear

By Dr Robert Close

18/10/06

MAC KOALA

WHEN the fire came roaring through the bush at Kentlyn last week we feared for our radio-collared koalas.

Fortunately, they were protected by back-burning and appear to be fine.

However, we expect that every 20 to 30 hectares of the burnt area would include a female's territory.

So it is quite likely that some animals would be affected. We ask bushwalkers to keep an eye out for bodies or singed animals.

Since our study started in 1999 we have not lost a single radio-collared animal to fire, with the possible exception of Francesca's daughter,

Sarah, whose collar ceased transmitting two weeks before the fires of Christmas 2001. We still watch out for her. Gary was singed but survived a fire at Kentlyn.

Whether the others have survived by luck or by having an effective fire strategy, we would love to know.

One male was not so lucky when a vehicle struck him at the junction of Sandy Pond and Heathcote roads - a site where other dispersing koalas have been killed.

He had small holes in each ear

indicating that he once had ear tags and so would have been one of our Campbelltown kangaroos.

Generally the ear tags are very strong and we've never had a koala lose both tags before.

Unfortunately we'll now be unable to identify him unless we can match the pigment pattern on his nose with photographs of our tagged animals.

Some koalas have individually different pink patterns around their nostrils which contrasts against the normally black skin.

Don't forget the UWS koala page 9962 6996.

Going out on a limb for love

By Dr Robert Close

THE latest reports from our two young koalas translocated to Tarfo River National Park in the Southern Tablelands are fascinating.

After her release, Flossie bolted one kilometre south and then more or less settled, moving only 20 to 30 metres each night. Jeremy, meanwhile, was much more active, moving back and forth, but never closer to Flossie than 300 metres.

One night last week, however, he moved 300 metres across an open paddock and we found him in a tree beside Flossie's tree.

This move was followed by a strange dance in which for the next two nights Flossie appeared in the tree used the previous night by Jeremy, while Jeremy had moved to a new tree about 20 metres away.

What could be happening here?
We'd like to think that love is

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blossoming and that in 35 days a tiny, naked joey will be born, climb to Flossie's pouch and attach to one of the two teats on offer.

If all goes well, we should discover the joey when we catch Flossie in the first week of December for her check-up. At that time the joey will be one month old and about the size of a mouse.

Under the terms of the project, the check-up is required after two months of freedom to ensure that both released koalas are healthy.

If not, the pair will be returned to Campbelltown.

We can't be sure, however, that just because the two koalas have found each other that a mating will follow.

Although Jeremy is reproductively mature, he is not as big and heavy as the older males that would have mated

with Flossie at Campbelltown.

We don't know, however, just how important it is to be big.

Certainly a koala must be big enough to fight off other males, but at the translocation site Jeremy has no competition.

Size, therefore, may not be so important.

On the other hand, koala mating is not easy. The female may not be obliging and the male has to use strength to manipulate the female into a suitable position while still hanging on to the tree.

Unfortunately, we don't know what's happening at night.

Melissa Farrelly, the masters student who is radio-tracking the pair each day, leaves them to their own devices at night. We'll just have to wait and inspect the pouch in December.

Report koala sightings on the UWS koala pager, 9962 9996.

Meetings with Magpies

By Dr Robert Close

FOR the past few years, as I've ridden my bicycle to work at UWS Campbelltown, a magpie has repeatedly swooped on me over the final 200 metres of the journey.

When I attached large eyes to the back of my helmet they enraged the magpie; the bigger I made the eyes, the more spited the attacks.

To reduce the intensity of the attacks I held a stick above my head, and this curious behaviour increased the enjoyment of unfortunates who witnessed my performance.

But this year my magpie has not come to greet me. Perhaps I wondered, he reached his allotted 25 years and fell on the perch.

So when I saw a talk hosted by the Royal Zoological Society of NSW on "Contentious issues in human-wildlife encounters" I was very interested.

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The talk was given by Darryl Jones of Griffith University, who described his research on magpies.

His findings answered a lot of my questions.

For example, magpies attack only when there are babies in the nest. Mr Jones said the season has been so dry that in Brisbane the nestlings have appeared a month later than usual.

Perhaps my magpie was not gone but simply delayed.

Mr Jones also confirmed my observation that magpies are attack specialists. Some never attack humans, some attack only cyclists, others pedestrians, and some cyclists and pedestrians.

Certain magpies attack certain people and ignore others - though Mr Jones has not distinguished what

factors trigger the attacks.

Mr Jones has also noted a problem of attack damage reported in Brisbane.

He found that magpies captured and moved 100 kilometres from their nests.

And most birds die themselves in the process.

But he has yet to determine the effects on survival of the parents of the nest.

For those interested in biodiversity, he has talks from Alan Jones, Paul, Rachel, and Seminar Room, 7, 30pm on Wednesday.

Report Koala Magazine, page 12.

Brendan gets away

By Robert Close

A pager message "baby koala
rescued by its mother" conjured up a
mental image of a lonely cub in the forest.
What we found, however, was a cub
mangled and stuck fast in vines on a
metal fence beside Darling Avenue at
100. The mother, who turned out to be
Charlotte, one of our radio-collared females,
was watching out from an adjacent tree.
There were several dogs at the residence,
and Charlotte was keeping at a safe distance.
We waited for the cub to extricate
himself. The cub, a male now named Brendan,
weighed only 1.4 kilograms. He was about
eight to eight months old and would have
been one of the latest cubs from last year's
breeding season.
While we fitted his ear tags, he squeaked
at intervals. In response Charlotte
climbed a few metres down the tree.
Before she'd gone too far, we released
Brendan and he shot up to safety.
Only before he reached his mother, the
fence branched into two parallel trunks and
Brendan took the wrong trunk.
This left him with a gap of 50 centimetres
separating him from his mother.
Charlotte made several cries that were a
mixture of cough and squeak and appeared

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to be saying "Come here you rascal" as she
leaned over and sniffed him carefully.

She then reached out with one arm and
tried to gather the cub in.

The distance was too great and eventually
the cub made a brave leap across the gap,
sniffed his mother's face then snuggled onto
her belly with the greatest satisfaction.

Not so lucky was a young male whose
corpse was sent to us from near Kurrajong.
This juvenile had also been stuck on a fence
but on that occasion dogs found him and
were jumping up and grabbing his feet.

The koala was rescued but one of his feet
was so badly mangled that infection entered
the broken bones. Sadly, the local
veterinarian was obliged to euthanase him.

We appeal to dog owners to listen for
unusual barking and investigate
immediately.

Separate the dogs and the koala by
wrapping the koala in a blanket.

Any house near the edge of the bush
along Campbelltown's eastern edge can
expect to have koala visitors.

Report koala sightings on the UWS koala
pager, 9962 9996.

Hard-to-catch Sam is really Samantha

By Dr Robert Close

MAC KOALA

15/11/06

THE UWS koala pager first rang early last Wednesday and continued to ring all day to report a young koala near the busy corner of Junction and Georges River roads.

We found several bystanders peering up at a young untagged koala sitting safely about 12 metres above us in a tall ironbark eucalypt not 15 metres from the road.

It had been picked up on the Ruse side of the road and carried across to the Ironbark. The rescuer must be a 'koala whisperer' because he was neither bitten nor scratched during this process. The tree was too difficult to attempt a capture at that time so we decided to leave the koala until evening.

In the intervening period, however, numerous people rang the pager number. Callers also rang WIRES and the Police Rescue Unit.

Towards evening, we decided to attempt a catch but the tree had too many branches that served as escape routes.

Fortunately, several residents from nearby houses who were watching the capture attempt offered to call us if the koala came down the tree, so we went home for a meal.

Within an hour, one of the residents rang to say that the koala had descended and was travelling west towards Campbelltown.

When we returned to the scene we found the koala had climbed one of a clump of small she-oaks beside the road. We could reach it easily with our extendable poles and were soon flapping the flags above its head.

Unfortunately, about two metres separated each she-oak and the koala athletically leaped from one tree to the next, losing some height with each leap, but immediately climbing up again before we could reposition the flags. Eventually, however, we managed to capture it just as the original captor arrived on the scene to accept naming rights. At that stage, because of its athleticism, we believed that the animal was a male so it became "Sam".

Later, while we were weighing, measuring and ear-tagging Sam, we discovered that he was actually "Samantha", a healthy young female, whose well-developed pouch indicated that she was ready to mate.

We released Samantha in Shirley's vacated territory about 1.5km away and hope she'll stay there.

Report sightings on the pager 9962 9996.

MORE COLUMNS PAGE 27

Young male branches out

22/11/06

By Dr Robert Close

MAC KOALA

EVERY now and again koalas do strange things that make us realise just how little we understand their behaviour.

For example, a strange thing happened last week as we were radio-tracking Charlotte, who, you may remember, is the mother of Brendan, a cub that entangled himself recently in the vines on a suburban fence.

The radio signal showed us that Charlotte and Brendan had suddenly moved a kilometre from their normal haunts. But when we thought we had found her, Brendan was missing.

Then we noticed a second grey lump in an adjacent tree but as we peered upwards the lump materialised into two, one of which was Brendan and the other Charlotte.

To make matters more complex, a much larger koala was spread-eagled

wearily in a tree 20 metres away.

So who were these other animals? The first female turned out to be Becky, a young female that we'd ear-tagged a month earlier and who we think was Charlotte's daughter from 2005. Amazingly, Becky had been noticed the previous evening at a site more than a kilometre away.

The big koala was an untagged male, trespassing on the normal territory of another male, Newman, who has ruled the roost in that area for some time.

What was going on? Why had two females independently and suddenly moved a kilometre to arrive at the same place as a young male? And why did the male appear so worn out?

The answers to these questions are clear but the next question is harder. How did the female koalas know that

the young bloke had arrived and what was it that had attracted them to him?

We know that on a still night the bellow of a male koala can travel 500 metres but according to locals Newman had apparently been bellowing for some months anyway, so what was new?

Because Newman is likely to be Becky's father, it would therefore be an advantage if another male was available.

Newman, however, would be unlikely to give up his territory without a fight.

Our guess is that the sounds of a fight had attracted the females, a fight won by the young male, now caught, ear-tagged and named Douggie.

And the fight, of course, was why Douggie looked so worn out.

Report sightings of the defeated Newman on the UWS pager, 9962 9996.

New sightings

29/11/06

By Dr Robert Close

MAC KOALA

ALTHOUGH the peak for koala sightings is normally September/October, we continued to receive plenty of reports in November.

Charlotte was observed crossing back across Georges River Road to her usual area with baby Brendan clinging to her back following her tryst with Douggle.

Then we had our first ever call from Macquarie Fields where we found a young male sprawling in a grey gum not far south of Simmos Beach. Unfortunately we were unable to capture him so he remains untagged and nameless.

We ask local residents who walk in the bush there to keep an eye out for him.

Another interesting call came from the Holsworthy firing range where a dead koala had been sighted beside one of the roads.

We know very little about the state of the koala population in the range.

We know that koala breeding is occurring successfully in the narrow strip of bushland between the Georges River and suburban Campbelltown from Long Point to St Helens Park, but until we know what's happening

on the eastern side of the river our research is incomplete.

So I was given permission to enter the range and was then taken out through a variety of vegetation types to a site several kilometres east of Ruse where a dead koala lay forlornly in a table-drain. He was too badly decomposed to determine the cause of death.

When his skull is prepared we'll learn more about his life and the cause of his death. His skull will then join the group of about 40 koala skulls that we've collected over the years.

Talking of collections, the celebrations for 50 years of ABC TV at Campbelltown Art Centre last weekend included performances by the panel of the popular program *The Collectors*.

I wonder how they would have responded to a bunch of skulls!

Report koala sightings on the UWS koala pager, 9962 9996.

Flossie missing in action

By Dr Robert Close *6/12/06*

READERS of this column will remember that two months ago we released two young Campbelltown koalas, Flossie and Jeremy Junior (JJ), in Tarlo River National Park.

This was part of a project between UWS, Sydney University and a local landcare group to re-establish koalas in the National Park.

On their release, both koalas moved about a kilometre from the release site to areas adjacent to cleared farmland.

Although the koalas have been relatively independent of each other, their paths have crossed and we are convinced that they are aware of each other.

However, while Flossie settled fairly quickly into what looks like an established pattern, JJ gallivants around the area, often crossing cleared paddocks but always keeping within

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a few hundred metres of Flossie.

We were looking forward, therefore, to their two-month check-up.

This check-up was required as part of the approved protocol prepared for the translocation.

If the koalas were found to be in poor condition, they would have been returned to Campbelltown.

But we didn't expect the pair to fail their physical as they were eating well and appeared to be in fine condition.

In fact, we were hoping that the check-up would reveal a newly born cub in Flossie's pouch.

Unfortunately, bad luck struck when Flossie's radio-collar suddenly gave a high pitched radio scream and thereafter failed to transmit.

Since then, extensive searching of her area has revealed no sign

of her except fresh faecal pellets.

To our great surprise, however, we discovered this week what we think is an entirely new koala in a tree where JJ had been tracked only a few days earlier.

Unfortunately, we were unable to get a catching team into action and the gender and age of this animal remain unknown.

Koalas haven't been recorded in the park for 40 years, so the sudden appearance of this new animal is fascinating.

Meanwhile, the catch-up of JJ went ahead this week and we are pleased to report that he has put on weight and appears to be in splendid condition except for a slight scratch on his nose.

The big question is: who did the scratching: Flossie or the mysterious stranger?

Report all koala sightings on the UWS koala pager 9962 9996.

Maybe they're not so dumb

By Dr Robert Close

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KOALAS are generally considered to be not very bright.

However, many Campbelltown animals have lived to a considerable age despite the many hazards such as dogs, cars, fire, drought, and humans.

That feat of survival requires a complex knowledge of, or reaction to, their surroundings.

A recent example of their apparently clever behaviour involved a Sydney Water Board compound at Kentlyn, which is protected by a chain-link fence topped with barbed wire.

Inside the fence a row of narrow-leaved peppermints (*eucalyptus nicholii*) have been planted and koalas love them.

We have always wondered, however, how the koalas cross the barbed wire.

A local resident solved the problem for us when she reported seeing a

13/12/06
young koala charge across the adjacent road and climb the fence at the exact point beside the gate where there is a small gap in the barbed wire.

We must assume, therefore, that either the koala had a very good three-dimensional memory of its environment or that it could visually work out the problem on the spot.

A clue to understanding the behaviour came a few days later when we were trying to catch June and her large cub to change June's radio-collar and to fit ear-tags to the cub.

The cub and June were in different trees and while we were attempting to flag the cub down it bleated to June who responded by climbing down from the safety of her tree.

However, her tree was separated by a one-metre high chain-link fence and

we were amazed to see June running up and down beside this fence, apparently not recognising that she could easily climb over it.

As a result of her maternal concern we captured June that day but had to leave the cub.

A few days later we found the cub in a low tree surrounded by dense lantana thicket.

We planned to surround the tree and creep through the thicket till we could grab the cub. When we met in the middle, however, the cub had vanished. We soon discovered it 15 metres high in an adjacent tree.

As we had been creeping through the lantana the koala had quietly crept past us to safety.

Brains or no brains the cub certainly had the last laugh!

Report koala sightings on the UWS pager 9962 9996.

Six koalas sighted in day

20/12/06

By Dr Robert Close

OUR record for the number of koalas sighted in the Campbelltown area on the same day by the same person was broken last week when Kieran spotted six adults and one cub in the Peter Meadows Creek area.

Five of the six adults had ear-tags so we gathered some valuable information about movements and home ranges.

The number of sightings also raises questions about the rate of increase in numbers of our Campbelltown koalas.

Way back in about 1991, a group of students from Leumeah High School and their science teacher, Kevin Quigley, came with me to search for signs of koalas (tree scratches and faecal pellets) in the same area of Peter Meadows Creek where Kieran found the seven koalas.

On the 1991 occasion we found no

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signs of koalas, although the habitat looked suitable.

One of the students took on the search of the area as a special project and I would like to contact him to discover what areas he searched, how much time he spent searching and what he found. This information could help us assess how much the population has changed.

So, if anyone can help me track down that student I would be very grateful. The only untagged animal of the six adults was a male who was only 20 metres from Lyn.

Lyn is one of our radio-collared females, who, at the age of 14, we thought was beyond breeding.

However, she had moved out of her normal area to make contact with this male, so clearly we were wrong.

When we next catch her we'll estimate the age of the cub, then count back that age plus the 35 days for pregnancy to see if the date coincides with last week's liaison with the male.

Also last week, a year-old cub was rescued by Nicholas Lace from the middle of the road at Wedderburn Gorge. We believe that the cub (now named "Lace") belonged to radio-collared Martine who lives in the Gorge and had been seen with her cub up until the previous week.

Interestingly, Martine herself had been rescued from exactly the same place in October 1998.

It appears that young koalas readily use roads, perhaps because they are easier to walk on than through undergrowth. So we urge motorists in the Gorge to be particularly vigilant.

Report koala sightings on the UWS pager 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, December 27, 2006

Note:

No column published on this date

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, January 3, 2007

Drop in koala sightings

10/1/07

FOLLOWING a hectic spring, calls to the koala pager slowed down during the Christmas period. Activity didn't entirely cease, however, with several sightings of untagged animals.

A koala was reported to be clinging to a small tree only metres from the freeway near Pheasants Nest Bridge. This was our third recent call to this area.

The first was a young female about to start her first breeding season and the second was found only metres from the freeway. The third animal was an

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ancient female in poor condition. Our local vet could find no obvious problem apart from old age and we returned her to her spot and let nature take its course.

We rely on gathering information from people spotting the animals and reporting their locations on the UWS koala pager, 9962 9996.

Here's who to ring when you spot woe

WHAT do you do when you see a koala in a tree surrounded by a pack of dogs?

This was the predicament faced recently by a resident at St Helens Park.

He rang three local vets for advice but reports that they were unable to assist him.

It was three days later that he finally obtained our number.

By that time, however, the koala and the dogs were long gone.

Had we been contacted earlier we would have assessed the situation and had the koala been in a small, vulnerable tree, would probably have moved it to a larger, safer one. Then we would have waited till the dogs lost interest.

Fortunately, our mature, radio-collared koalas seem to have learnt how to cope with dogs because none of them has been seriously injured.

Shirley, who lived to be 14, was an exception.

We believe that she lost one of her cubs to a dog and in the attack suffered a minor bite to the chin that never completely healed.

The main problem we see is koalas venturing into private gardens where dogs are roaming free.

Packs of dogs in the bush, however, are a danger to all local wildlife and dog owners must be responsible and keep their animals

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By Robert Close 17/1/07

confined. If you see any dogs in the bush on council land, call **Campbelltown Council on 4645 4000** and you will be transferred to the rangers.

Ring the same number after hours and a recorded message will give an emergency number where you can provide details on location, and descriptions of the dogs.

If you find an injured koala, ring the **UWS koala pager, 9962 9996** immediately.

If we haven't responded within 10 minutes, there will have been some sort of problem with the paging system. In that case, ring again and then call the **WIRES number, 8977 3333** and they will attempt to get a qualified carer to the scene.

If there are any difficulties with providing a carer, WIRES will recommend a local vet.

In that case, carefully wrap the injured animal securely in a blanket for transport.

Make sure it cannot escape from the blanket.

If you live adjacent to bushland keep these instructions handy.

Mystery moves in the bush

THE editor, Jeff McGill, took great pleasure from his discovery that a former owner of the land on which the battle for the Wedderburn koalas was fought was my namesake, Robert Close.

Last week I learned of yet another local Robert Close when the long-term Bradbury resident's grand-daughter, Renee, rang to report a koala beside Spring Creek in St Helens Park.

Renee and friends had heard the koala on the ground growling during the previous evening and returned next day to check it out.

They found it in a tall red-gum beside the gross pollutant (which desperately needs cleaning) between Woodlands Road and Ironside Drive and then called the UWS koala pager.

Although a catch was not possible, I warned Renee that the koala was probably being driven up Spring Creek by a larger male and may continue to move up the creek-line and out of the protective bush.

Sure enough, the pager rang at midnight to report a koala walking along St Helens Park Drive.

I arrived to find Craig and Tamar Abbott guarding the young male koala in a small tree beside the road.

Craig donned gloves to help me catch the koala, then held it in the bag while I inserted ear-tags.

There was a small problem of naming rights, however, as both Renee and

MAC KOALA

By Dr Robert Close

Craig had some claim. I finally decided that Craig's assistance had led more directly to the capture and so the koala is now named Cramar.

Deciding where to release Cramar was a problem.

Spring Creek is bordered to the north by back fences off Woodlands Road and to the west and south by Ironside Drive, Litchfield Place and Fullarton Crescent.

I released Cramar in bushland off Fullarton Crescent in the hope that he will be able to avoid the resident male.

Over the next few days, however, we received several calls from Ironside Drive, Litchfield Place and Fullarton Crescent.

Each appeared to be a different koala but not one had Cramar's ear-tags.

So something unusual is afoot in Spring Creek.

We also had a call from Wedderburn where a tagged koala was resting from the heat at head height, seemingly unperturbed by onlookers.

His tags identified him as Junior, tagged in Airds as youngster in February 2003.

He'd travelled six kilometres as the crow flies.

Report all sightings on 9962 9996.

Find turns the tide

By Dr Robert Close

ALTHOUGH our major research interest is the Campbelltown koala population, we are also interested in recording the status of adjoining populations and indeed those across the Sydney basin and as far south as Goulburn.

Back in November we were called out to Lyrebird Road, Pheasants Nest, near Bargo.

This call was especially unusual, however, because the callers had already captured the koala and we arrived to find a two-year old female waiting calmly in a large mesh crate.

We weighed, measured and ear-tagged her while the landowners chose her name - Chloey.

As they lived in a hobby farm area, with the nearest bushland about a kilometre away, choosing a suitable release site was difficult.

After discussion with the local people we decided to release her

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beside the Bargo River near Rockforts Bridge where there appeared to be plenty of suitable habitat.

This site was probably not far from where the first recorded sighting of a koala was made by white explorers on January 26, 1798.

Last week, a caller from Bargo River Road called to say that a koala with Chloey's ear-tag colours was in a tree in their property. This was great news and showed that over two months Chloey had moved about five kilometres as the crow flies and was now close to Tahmoor.

Interested people can plot her progress using the remarkable Google map on the web.

Aerial photographs with road names superimposed provide marvellous detail.

We are keen to plot Chloey's

movements and discover where and when she will settle down.

We ask people in Tahmoor and Couridja to be on the alert, particularly if their dogs are barking excitedly.

■ We received a call from John Jeremy who found a koala barrelling along the road just north of Berima.

In the course of conversation, John described how he used to knock about with local environmentalists, the late Sid Percival and Keith Longhurst.

One day Sid took John to visit an old fellow who lived a hermit's life in a bush hut at Pheasants Nest.

John was intrigued to see the old boy open up a box of koala skins that he had collected locally in the 1920s when koalas could be legally shot.

So it looks like Pheasants Nest was once a peak koala site that may now be recovering.

Don't forget the UWS koala pager number 9962 9996.

Signs make scents

By Dr Robert Close

7/2/07

KOALAS are generally considered to be solitary animals with limited social lives.

Sure, we know that the male koalas will fight each other over females and territory and that the females are attentive mothers until the cubs are weaned.

But is their social system a little more complex than that? For example, do they take comfort in each other's company?

Let's first look at their ability to communicate.

First, there's the famous bellow of the mature males that sounds like a pig attacking a chainsaw. Then there's the plaintive cry that sounds like a disconsolate baby.

This heart-breaking call is used by both adult males and females to denote, we think, submission and is different from the scream that denotes pain or fear. Then there's a whole vocabulary of grunts and squeaks that are used between the mother and cub.

Another mode of communication is by scent.

Mature males have a small, greasy gland in the middle of their white chests.

This gland produces 30 different chemicals, far more than in the equivalent gland of a possum, for example.



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The male will rub this gland against a tree to advertise his presence.

It would be marvellous to know what sort of information about the individual would be transmitted: perhaps size, weight, age, or ferocity.

What set me thinking about this was a description from Wendy who had been out at Wedderburn tracking Franchesca (pictured).

Wendy had watched as Fran wandered through the bush sniffing at the base of each tree as she went.

Finally, she selected and climbed a tree that was adjacent to the tree in which her adult daughter Pam was resident.

Now, that might be coincidence but it looks to us as though Fran was actively seeking out her daughter's company and had used smell to do it.

And the reason she may be seeking support is that she is now very old, at least 14, and her body may be failing.

When Wendy tracked her last week she was within touching distance of the ground.

Her coat was ungroomed and she looked very dispirited. We hope Pam can be of some comfort.

Don't forget the UWS koala pager number 9962 9996.

Have a sticky at this

AS pets go, "Phasmo" couldn't have been less trouble.

All he needed was some fresh eucalypt leaves sprayed with a mist of water and the freedom to roam around our sunroom.

It was very relaxing to watch this ungainly creature chomping through the fresh leaves and adopting camouflage positions.

Before you start thinking that Phasmo was a koala, however, let me put you straight.

Phasmo was a phasmid, or as it's known in non-scientific language, a stick insect: a local, twig-like creature about 15 centimetres long.

The phasmid has some similarities to the koala, however, in that it can survive on a solely eucalypt diet and cope with the many poisons which eucalypts put into their leaves to deter leaf-eaters.

It is also very hard to spot in the bush.

■ Anyone interested in seeing some of our phasmid species and learning about them is welcome to attend the free Phasmid Phantasy night at the University of Western Sydney, Campbelltown Campus, from 7pm to 9pm on Saturday, February 24 (lecture theatre 6 in building 21, next to car park P6 on the western side of the buildings).

MAC KOALA

By Dr Robert Close

14/2/07

This evening will feature phasmids and information about the world's rarest, The Lord Howe Island stick insect.

There will be a display of other local insects and a light trap will be set up to entice insects out of the bushland so we can inspect them.

If you're interested in unusual insects it will be a fascinating evening, no matter your age.

The event will be arranged by UWS, Insektus (insect education) and a local group, the Friends of the Long Lost Phasmid, which is attempting to breed the Lord Howe Island stick insect in captivity with the aim of reintroducing the phasmid to the island.

At present the phasmids (perhaps 20 in all) are found only in the wild on a tiny pinnacle of rock off Lord Howe Island. Rats caused the phasmid's extinction on the main island.

Details: Stephen, 4628 5368.

Don't forget the UWS koala pager number 9962 9996.

Helped needed to find off-air Fran

By Dr Robert Close

21/2/07

TWO weeks ago we showed the picture of Fran, a frail, old, female koala, whose life we have been following since September 1995.

At the time of capture, Fran weighed seven kilograms so would have probably been three years old.

That would now make her almost 15 years old, a grand old age for a wild koala.

She has worn a radio-collar continuously since 1995 and has provided us with a wealth of knowledge.

We expected that she would eventually die of old age and her radio-collar would lead us to the body.

From the body we expected to find information on which organs fail in old koalas, while from the skull we would obtain measurements of teeth wear and gum damage.

So it was with great consternation that Mick and Wendy recently discovered that Fran's radio-collar was not producing a signal.

Her adult cub, Pam, was visible but of Fran herself there was no sign.

Since she'd last been tracked, we'd experienced the huge downpour that saturated the district.

We suspect that it also saturated Fran's radio transmitter.

Alternatively, she died and was washed down into a nearby creek.

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Whatever the case, we desperately want to find her. We ask bushwalkers and mountain bikers to keep a lookout for her.

Her area is four kilometres north of the Victoria Road entrance to the Dharawal State Conservation Area in Wedderburn and overlooks O'Hares Creek to the east and Pheasants Creek to the west.

The northern marker of her home range is a short but very steep section of the track that we call the "jump-up".

We've also had another radio-failure at Ruse where on Charlotte's radio frequency all we can hear is garbled talking and static.

Charlotte's home range is bounded by Georges River Road, Darling Avenue and Old Kent Road.

We would be grateful if people residing or walking in this area could keep their eyes peeled for her. We suspect she's carrying a cub in her pouch.

This means that the mother tends to lean back from the tree fork where she's sitting and becomes a little easier to spot.

On the other hand, mothers with cubs often spend the day in trees with thick foliage to avoid predators and high temperatures.

If you see these or any koalas call the UWS koala pager 9962 9996.

Group will stick to endangered insect

By Dr Robert Close

28/2/07

MORE than 40 people braved the spectacular electrical storm on Saturday night to attend the first meeting of the Friends of the Long-lost Phasmid at UWS on Saturday night.

They were rewarded with a live viewing of the world's rarest insect, the Lord Howe Island phasmid (stick insect).

An adult female and a nymph were on show and they will form the nucleus of a mainland breeding colony in NSW.

The Friends aim is to breed sufficient numbers of the phasmids to release them on Lord Howe Island when the phasmids' introduced predator, the black rat, is exterminated.

Attendees also saw slides of Ball's Pyramid, a tiny cone of rock near Lord Howe Island where the phasmid was rediscovered many years after being considered extinct.

They were also able to handle local stick insects and appreciate the beauty and amazing camouflage of these astounding creatures.

The Friends need 10 more members to qualify to receive income tax deduction status for corporate sponsorship to develop the breeding program. If anyone is interested in joining, please contact Stephen Fellenberg on 4628 5868.

Here's a sticky question: how does a large

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flightless insect appear on a tiny, isolated island (Lord Howe) that arose from a volcano 600 kilometres out in the Pacific Ocean?

■ On another issue, both koalas and stick insects alike will be affected at Butler's Swamp, Kangaloon (near Robertson), if plans to pump bore water to augment Sydney's water supply go ahead.

At present the water table lies only five metres below the surface.

At this depth large trees have their roots surrounded by moisture which they then move to the leaves where it reacts with sunlight and carbon dioxide to make sugars, and eventually fats and proteins.

When koalas, stick insects and a host of other insects, birds and mammals feed on the leaves, fruits and seeds of the eucalypts, they extract the nutrients for their own use.

If the water table is lowered by pumping to a level below the reach of the trees then the entire cycle slows and stops and will cause the users of these trees to die or move.

Use of underground water is a very complex issue and requires a lot of ecological knowledge which is often lacking.

Report koala sightings on the UWS pager 9962 9996.

Tough fights are won by activists

By Dr Robert Close

At last weekend's Campbelltown Arts Centre symposium about art, environment and activism I spoke about science and koala activism.

Protection of koalas played a major part in the great environmental battles against development of Wedderburn/O'Hares Creek and against the Holsworthy second airport.

Both battles were won by activists with something of much greater value than the koalas being saved: the fabulous O'Hares Creek Gorge and the wilds of Holsworthy.

Science played a major part in the battles. However, had the koala population been as widespread and robust in 1988 as it is today, the O'Hares argument would have less force.

Perhaps the Wedderburn development would have proceeded, with O'Hares Creek being cleared.

What all we knew was that Wedderburn had become the colony of koalas with no other O'Hares. The koala population was as widespread and robust in 1988 as it is today, the O'Hares argument would have less force. Perhaps the Wedderburn development would have proceeded, with O'Hares Creek being cleared.

Fortunately, the tireless activism of the koala protectors carried the day.

So, this is what we know, that's different.

■ Breeding koalas can be found on the western side of the Georges River from Minn to St Helens Park. They are producing one young a year from age two to 15.

■ Emu andia is probably latent.

■ Most cubs are surviving to weaning.

■ Males are dispersing widely across the

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Campbelltown's koala habitat will always face development

landscape from Douglas Park to Ashurst.

Had this state of expansion been in 1988, activists may have succeeded in special protection for 40% of Wedderburn.

The big questions are whether koalas were truly at Wedderburn and the colony expanded into the surrounding population.

We are not sure of the answer, but that the O'Hares Creek Gorge protection against fires and will be a safe sanctuary.

Campbelltown's koala habitat will face development.

In 2009, when Landcom was to develop a large tract of land between Kellerman Drive and the Georges River, we had koala knowledge of how koalas used the area.

Today we know much more.

This site is again under development, but activists have evidence to support any claims.

Report koala sightings on the UWS line 9962 9996.

Lithgow panther spotted near Appin

14/3/07

By Dr Robert Close

OUR koala research project is a combined UWS/ community collaboration where community members locate koalas for us.

We then catch the koala, fit it with individual ear tags and then wait for other community members to report its movements. We depend, therefore, on an accurate identification of the koala in the first step of the process.

Koalas are so unique in appearance that you might think mistakes would not be made. However, several dead grey cats have been reported as koala roadkills and a professional biologist once called us out to an animal that turned out to be a possum.

So I'm professionally interested in the accuracy

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of mammal identification. This interest led to investigating the reports of a big black cat that have been particularly frequent in the Grose Valley, Lithgow/Mudgee areas and recently near Appin.

A recent event from the Lithgow area has me intrigued. A biologist for a pest control firm rang to say that an employee had reported hitting a big black cat with his Toyota Hi-Ace at 3am while he was driving, sober, at 80-100 km/h.

The cat had run from left to right and had been hit on the right hand side of the bumper bar.

The driver then stopped and on hearing growingl from the bushes decided that safety was more important than science and drove off.

The next day, the biologist found a 15-centimetre wide depression in the bumper and attached to it was a sample of black hair which he sent to me. I then sent the hair sample on to an expert in mammalian hair identification. Her conclusion was that the hair was from the cat family, probably domestic cat, but that it was unusually black.

So here we have a cat big enough to hit a bumper bar at knee height with sufficient force to dent the bar yet still survive, at least for a while.

Was it just a big moggy or was it something more exotic? Whatever the case it's of scientific interest.

Report koala sightings on the UWS pager 9962 9996.

MORE COLUMNS PAGE 110

Plenty of action out in the branches

21/3/07

By Dr Robert Close

PEERING up with binoculars at the grey shape in the tree near Peter Meadows Creek, at Ruse, we could see no eartags so presumed it was a new koala.

We then went in to capture mode and soon the animal was scuttling down the tree to escape the fluttering flags atop the long, extendible poles.

It was only when the koala was close to the ground that we could see the green and red eartags poking out of the thick fur of her ears.

The tags identified her as Janice, daughter of Irene, who used to be the nearest neighbour of Shirley on the banks of the Georges River. We'd originally tagged Janice in November 2002 when she was still with her mother at the age of one year.

Soon after that, Janice travelled three kilometres north, all alone, to establish in Peter Meadows Creek.

Earlier in the morning, we'd captured a young cub in a tree about 30 metres from Janice.

She weighed only 2.5 kilograms and was about as endearing as an animal could be.

After christening her Amber and fitting her with her brightly coloured eartags we

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released her in her mother's tree in case she needed a little comforting. It's amazing to think a cub so young, inexperienced and vulnerable could not only survive on her own but be capable of travelling considerable distances into unfamiliar territory.

Yet, that is what her mother achieved and, hopefully, what she will do, too.

The available real estate for koalas along Peter Meadows Creek is becoming scarce as the breeding boom continues.

We suspect that she may have to move north like her mother did five years ago.

Earlier in the week, and only 300 metres away, we'd changed Amanda's radio-collar and checked her pouch to find a tiny, pink joey, the size of a thumb, squirming inside.

We first captured Amanda 10 years ago, as an adult, and she has produced a cub almost every year since and is still going strong.

Tracing the movements of these cubs is fascinating and tells us a great deal about koala biology.

Report koala sightings on the UWS pager, 9962 9996.

Echidna spotted

By Dr Robert Close

28/3/07

WENDY, our radio-tracker, discovered a young echidna recently in the bush at Ruise.

Finding such young echidnas is quite rare and hopefully means that echidnas are breeding in the area.

It's no wonder youngsters are scarce, because female echidnas may breed as seldom as once every three to seven years and don't start until they're five to seven years old. Fortunately, they live for 45 years or so.

Even with such a long life, there are some fears that echidna numbers are decreasing.

The Macarthur region appears not to be one of those areas. At a public lecture last year, when I asked the audience how many had sighted an echidna locally over the past six months, about two-thirds raised their hands.

The fact is that we don't know much about the status of these fascinating creatures even though they're Australia's most widely distributed mammal.

For example, it's not known how many young echidnas survive to adulthood. It may be that most of the echidnas we see are old and, if so, the population may soon crash.

In an effort to discover information about echidnas, a nationwide survey, Echidna Watch, has been set up to collect details of

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sightings and other information.

So, if you find an echidna in the bush or in a suburb, email echidna@kin.on.net to record your sighting details.

One of the reasons why we need to study echidnas is that they are so special.

They are one of only three species of a unique group of mammals that lay eggs, the monotremes. Imagine if we could keep only three species of that other unique group of mammals, the marsupials.

Which three would you choose?

The reproductive life of the echidna is fascinating. Mating is preceded by trains of up to 11 echidnas following each other nose to tail across the landscape.

The resulting egg is manipulated into a pouch where it hatches 10 days later.

The hatched youngster is known as a "puggle" and it grows rapidly by slurping up milk that seeps out of special glands. After seven weeks the appearance of spines means ejection into a nest where it spends another five months. After that, the puggle is on its own, just like the one spotted by Wendy.

Report Koala sightings on the UWS page 9962 9996.

Possum removal not the way to go

By Dr Robert Close

4/4/07

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A colleague came to see me recently asking for advice on what to do about persuading a possum to leave his roof.

My first question was "what kind of possum is it?" to which he replied that he'd not actually seen it - but had only heard it.

The options available were the common brushtail possum, the common ringtail possum and the black rat (*Rattus rattus*).

This introduced rat, also known as the roof rat because of its liking for roofs, is very common in Sydney and suburbs and a close inspection of most roof spaces would reveal their droppings.

So my first advice to my colleague was to inspect his roof with a torch to identify the unwanted guest.

The brushtail is the largest (1.2-3.5 kilograms) and is grey with a black, bushy tail, while the ringtail is smaller (700 grams to 1.1 kilograms) and browner with small ears and a smooth tail with a white tip.

Curiously the black rat (100-340 grams) is normally brown and has a tail longer than its body.

Having decided that he was dealing with a possum my colleague then had to obtain a free licence to trap it from his nearest National Parks and Wildlife Service office.

I then loaned him a wire box trap that lets the possum be caught alive and unharmed.

All went well and after setting the trap in the roof space, next morning he found a ringtail possum in the trap.

He was then able to seal up any gaps in the

"He released it in bushland two kilometres from his home. This action almost certainly condemned the possum to death."

roof where the possum may have been able to enter.

At this point, however, my colleague disobeyed the rules and instead of freeing the possum on his property, he released it in bushland two kilometres from his home.

This action almost certainly condemned the possum to death.

Studies of translocated and radio-collared ringtails have shown that predators have killed almost all of them within days.

So what should my colleague have done?

National Parks and Wildlife Service has a useful site which encourages luring the possum out of the roof and into a sturdy weatherproof possum-house filled with the nest from the roof, then fixing the possum-house four metres high in a tree in or near your yard: www.nationalparks.nsw.gov.au/npws.nsf/Content/Removing+a+possum+from+your+roof.

Only if the enticement fails should trapping be considered.

We should learn to live with our wildlife.

Report koala sightings on the UWS pager: 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, April 11, 2007

Note:

No column published on this date

Foxy little pests threaten Tassie

18/4/07

AS A result of my interest in reports of big black cats I have been sent interesting items for identification, which include several samples of black hair, photographs, a plaster cast of a skull and faecal samples.

One of the latter was part of a 40 centimetre long scat full of hair and bones, which would be no problem for forensic scientists of TV crime shows.

They would place the sample into a shiny machine emitting fluorescent purple light and a print-out would provide DNA identification in minutes.

In reality, however, the process is not easy.

An interesting study has been published about the identification of fox DNA from cells that scrape onto faeces as they move through the gut.

This information is vital because 12 to 19

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foxes are thought to have been released deliberately in Tasmania in 1999-2000, an act that could threaten small mammals.

The release, sadly, has coincided with a dreadful disease which causes facial tumours, and a resultant population decline in Tasmanian devils.

The devils could have preyed on fox cubs and reduced the foxes' impact.

It is vital, therefore, that wildlife managers survey fox distribution so that eradication programs are effective. Unfortunately, although more than 1000 sightings have been recorded since 2001, most have been difficult to verify and many are probably mistakes.

Nevertheless, three fox carcasses have been

discovered and baiting programs run in places of most sightings.

Having a rapid, cheap method of identifying fox faeces would avoid erroneous reporting.

Accordingly, a University of Canberra team used published DNA sequences from Tasmania's other predators (devil, dog, eastern quoll, eastern quoll) to design a cheap test to identify fox DNA from the others.

The test worked well in a laboratory, but field trials provided positive fox identification from only one of 1160 scats collected across Tasmania, which shows low-density population study is difficult, but gives hope that the fox is not firmly established.

Report koala sightings to the UWS pager, 9962 9996.

Martine keeps in good health

25/4/07

MARTINE was picked up from Wedderburn Road at the gorge by a motorcyclist in 1998.

The koala was then two years old but still small enough to be packed into a gym bag by the rider, who then notified us.

We have no idea why she allowed herself to be captured so easily.

After a veterinary check-up we released her back at the gorge, with a bit of trepidation.

Fortunately, and despite the dangers presented by traffic, Martine has continued to live and breed there. She is often seen by motorists, particularly when she chooses trees close to the road on the Wedderburn side of the causeway.

In 2003, we were able to recapture her and fit a radio-collar. Since then we have been able to follow her movements on either side of the causeway and record the details of her cubs.

Recently, however, our radio-trackers found that

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Martine's radio-signal was weak. They also found at the base of her tree the small antenna broken from her radio-collar.

It was vital to recapture her and replace the collar because the range of the signal was drastically reduced and there was a good chance that we would lose her.

So we set the fence-trap around her tree and checked it every two hours. By 10.30pm she had descended to three metres from the ground, but by 11pm she'd vanished, presumably by jumping from her tree to one outside the fence.

Fortunately, we were able to find her a few days later, this time high on the cliffs on the Campbelltown side of the causeway.

We used the pole-and-flag method of capture,

and although she leapt consecutively into three adjacent trees, we eventually captured her.

For an 11-year-old koala she was in fine condition, weighing 8.2 kilograms.

This weight included a few grams for a 3 centimetre-long joey in her pouch.

Given that the joey was about two weeks old and the gestation period lasts 35 days, Martine must have mated in early March, right at the end of the breeding period.

At that time, Martine was still accompanied by her 2006 cub Lace, who will become increasingly independent until the dispersal period in August.

Motorists should, therefore, be vigilant when driving through Wedderburn Gorge.

Report koala sightings to the UWS pager, 9962 9996.

Stringy bark home for Jere

TARLO River National Park, where we translocated two young Campbelltown koalas last year, is 20 kilometres north of Maitland.

Although the major food trees for Campbelltown koalas (grey gums and stringy barks) are common there, the soil is different.

Instead of sandstone or clay-based soils there are loosely bound conglomerates of tiny pebbles on the hills and alluvial flats in the valleys.

Not surprisingly, those fertile valleys were cleared, and outside the park are still being cleared for livestock.

Almost every time we have radio-tracked our two koalas we have found them within 50 metres of the edge of the forest and the cleared valleys.

Unfortunately, as we've reported in earlier columns, the radio-collar of the female (Flossie) failed after two months and despite numerous searches we have been unable to find her.

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We have concentrated our searching on the 50 metre border zone and our method is to scan the trunks for scratches, the forest floor for scats and the treetop for koalas. Because the forested areas are almost devoid of understorey, searching is relatively easy and we have been able to find scats up to several months old.

The only fresh scats, however, have been near the male koala (Jeremy). Jeremy has moved about three kilometres from the release site and for the past three months has settled in an area where two creek-lines merge at the edge of the cleared valley.

So the trees there would have their roots in the water table and there is a wide selection of eucalypt species to choose from.

Interestingly, Jeremy spends most of his time in a

stringy bark species not found elsewhere.

In fact, both koalas showed a preference to eat unfamiliar species. This gives us confidence they have sufficient nutrients to survive.

We were fascinated to find they have apparently settled down. Little is known about how koalas choose their area. Researchers have suggested they roam around until they are challenged by a resident male.

Jeremy recently moved to a new area. The creek-lines then returned after a while to his favourite grove of stringy barks. He has his eye on Flossie, avoiding another koala just patrolling his "patch".

Report koala sightings to the Macarthur Office on 9962 9996.

Foliage would hide Flossie

9/5/07

By Dr Robert Close

PEOPLE often ask whether we could use infra-red equipment (thermal imaging) to locate koalas.

We've often considered how useful that would be to locate Flossie, our radio-collared female, who we released in Tarlo River National Park last year.

After her radio-collar ceased transmitting we've been unable to find her, even though her mate Jeremy is still transmitting strongly.

In thermal imaging, heat transmitted by the object shows up brightly against the cooler background.

Several years ago we experimented with a hand-held thermal imager which was capable of detecting a handprint seconds after pressing a hand against a wall.

The image was made from the heat remaining from the hand contact.

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This particular imager, however, was not useful for surveying koalas because foliage masked the heat signal - moreover, the tree trunks absorbed a lot of heat during the day and therefore "glowed" at night and caused distraction.

This borrowed imager was in the lower price range at \$50,000 and its effectiveness would be much lower than the much more expensive models available.

A quick search of Google reveals the incredible range of models on the market.

A useful demonstration of the use of the technique to survey wolves can be seen on www.fieldtripearth.org/article.xml?id=712.

Thermal imaging of koalas at Tarlo River National Park would also detect the many wombats in the

area. They could be distinguished from koalas by their greater mobility and greater body temperature; koalas are about one degree cooler than most mammals.

The extremely high insulation from the koala's fur would also produce a duller image.

However, if we had a top-of-the line imager to work with we could first check that we could find Jeremy before searching for Flossie.

Only the Department of Defence would have an imager of the quality needed, and we have made requests for assistance.

What great publicity it would be if Flossie were found.

Report koala sightings to the UWS pager, 9962 9996.

Gorging out on scenery

Robert Close

Today we had a picnic with Mayor Aaron Rule at the edge of O'Hares Creek Gorge. The magnificent gorge is 150 metres deep and 100 metres across to the cliffs on the eastern side. Beneath us we could see the creek itself and hear its sound as the water tumbled through sandstone blocks that comprise its bed. From horizon to horizon we could see only trees, rocks, cliffs and blue sky, with no sign of rubbish that so often accompanies a picnic. We had to pinch ourselves to believe that we were only eight kilometres, as the crow flies, from the town railway station. Sadly, crows would find it easier to visit than we who would have to drive or cycle via O'Hares Gorge and Minerva Road, parking at the end of Victoria Road.

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This gate leads into the new Dharawal State Conservation Area. From the gate it is a walk of one kilometre to the edge of the gorge.

We had taken the mayor into the area, not only to introduce him to the beauties of our bushland, but to use his gimlet eye in the search for the missing koala, Fran, whose collar ceased transmitting some weeks ago.

She had worn a radio-collar continuously since her initial capture in September 1995, and was located on 259 occasions in her 30-hectare territory by our hard-working trackers. She provided a wealth of information about tree use, movements, reproductive success and behaviour.

The final information that we lack would come from her skeleton, which would reveal the effects of

old age on her joints, teeth and gums.

Unfortunately, our search for Fran was fruitless, we did discover paintings of a large kangaroo in ochre, and two beautiful fish in charcoal; protected in a sandstone overhang.

Perhaps the most moving, however, were two spatter outlines of a child's hands in red.

These works emphasised how important this is to remind us that indigenous people occupied and made a living from this land relatively recently and that we should keep it and the gorge in its present pristine state.

We ask bushwalkers and cyclists who visit the area to keep an eye out for Fran, or her radio-collar tags and skeleton.

Report koala sightings to the UWS pager, 9962 9996.

Wrong number mystery

23/5/07

By Dr Robert Close

WHEN the koala pager rang last Friday night, the message read "Koalas fighting, ring Kevin".

The phone number supplied, however, had an additional digit - the pager receptionist had clearly made a mistake in recording Kevin's number.

The normal process is that when the receptionist from the paging service receives a call, the details are recorded and then the message is relayed to our two pagers and also to our email addresses.

We then call the original caller, in this case, Kevin, and find out the details of the sighting.

Unfortunately the system is not foolproof.

Sometimes our pagers don't receive the call if we are out of range or in a large building, or if we turn the pager off in a picture theatre.

Having the two pagers reduces the chance of

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missing a call, but occasionally we do.

When this happens the original caller feels very let down and naturally blames us.

So this last occasion put us in a terrible situation with Kevin because he would have thought that we didn't care while he waited and waited in vain for us to respond. However, I did try.

My first response was to ring the paging service to check the original number recorded from Kevin.

Unfortunately their records contained only the number with the additional digit.

My next step was to ring all the likely numbers less one digit.

This led to some interesting conversations: "My name's Robert Close and I'm trying to contact

Kevin about fighting koalas". "You're what?" etc etc. Unfortunately I couldn't find Kevin.

That same evening, however, another call came in to report a koala sighting.

Hoping it was the same koala that Kevin sighted, I called the number supplied.

All I received was a voicemail response.

However, I finally got through to a person the next morning, but it wasn't the original caller and he knew nothing of koalas. At that stage I rang the manager of the paging company to complain.

My advice to callers is to give your surname as well as your first name and to ask the receptionist to repeat your phone number back to you.

Then if we haven't responded within 20 minutes, call the UWS koala pager ~~9962 9996~~ again.

So Kevin, please call again about the fighting koalas!

Campbelltown Macarthur Advertiser, Wednesday, May 30, 2007

Note:

No column published on this date

Teeth an ancestral trace

6/6/07

By Dr Robert Close

ONE of the interesting things about koalas is that there is only one species (*Phascolarctos cinereus*), which is quite unlike other animals.

In contrast, there are dozens of species of wallabies.

Biologists are therefore interested to know the evolutionary history of the koala and whether there has been just one line stretching back, or whether a family tree of koalas has died out.

Answering this question requires a good supply of fossils - and such things are not easy to come by. Fortunately, the teeth of koalas are very distinctive, especially the molars which are adapted to cutting leaves into tiny fragments then crushing those fragments to release their meagre store of water, sugars, oils and proteins on which

the koala depends. Teeth survive relatively well and fossil koalas can be identified by a single tooth.

A recent publication, however, describes an entire row of molar teeth plus a pre-molar (cutting tooth) from a site in western Victoria that dates back to the early Pleistocene period (2 million years ago).

The teeth are clearly from a koala but they are 20 per cent larger than present-day koalas, and the author says that the koala was likely to belong to an extinct species, *Phascolarctos stirtoni*.

The new fossils, however, are 10 per cent smaller than those of the extinct species.

Only two other extinct species of the group (genus) *Phascolarctos* have been described,

Phascolarctos yokensis and *Phascolarctos maris*, and these may also extend back beyond 2 million years. Fossils of these koalas have been found only in the eastern states and indicate the evolutionary tree of koalas has never had many branches.

Beyond 2 million years ago, another genus of koala (*Koober*) appears, and beyond 15 million, three more (*Perikoala*, *Litokoala* and *Madaokoala*). These groups all had koala-like teeth and arose when eucalypts began to become widespread.

Let's hope humans do not cause the extinction of the one remaining line of koalas.

On a local level, we have still not heard back from Robert and Kevin, whose calls to the pager we were unable to respond to.

Report sightings on the UWS koala pager 9962 9996.

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Territorial bellows start

13/6/07

By Dr Robert Close

SOME months ago we ear-tagged a young male koala, Cramar, who was heading off beside Spring Creek and Woodlands Road across the cleared area towards Appin Road at St Helens Park.

We released him nearby in sheltered bushland off Fullerton Circuit.

Recently, Cramar was spotted again in a tree beside nearby Spring Creek. We suspect that one of the tough, old males that lives there is driving Cramar out of the prime feeding areas.

Such territorial activities normally occur in July or August. However, callers have recently been reporting the incredible sounds of koala bellowing, so perhaps the activity season is starting early.

As proof of this, we recently found a very flat koala that had tried to cross the Wilton/Picton

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Road where it crosses Allens Creek near Wilton.

■ Another animal besides the koala that can live on eucalypt leaves alone is the fantastic phasmid, or stick insect.

Bring along your pet phasmid or come and learn how to care for them at a Phasmid Phantasy meeting at the Campbelltown Arts Centre on Saturday, June 16, from 2pm to 4 pm. The

occasion will be run by the Friends of the long-lost Phasmid, a group that is trying to save the rarest insect on earth, the Lord Howe Island stick insect.

Living examples of this stick insect will be at the event along with local species.

■ Another way to live with native animals is to encourage them into your gardens.

Look at www.birdsinbackyards.net/ for hints. You will also find photographs of all Australian birds, and be able to take part in a survey of birds in backyards.

In a survey of members recently, 43 per cent of respondents indicated that, as a result of the website, they have undertaken activities in their gardens to improve the habitat for birds.

A further 26 per cent of respondents indicated that they plan to do so. The most common changes people have been making to their gardens are:

- planting native plants (76 per cent);
- providing water (31 per cent);
- planting "thickets" to provide protection for small birds (20 per cent).

Report all koala sightings on the UWS pager 9962 9996.

Lucky us so near the bush

By Dr Robert Close

BACK in 1996, when the first Mac Koala column appeared, the co-author was Steven Ward, who was just starting a PhD project to study Campbelltown's koalas on a scholarship jointly funded by UWS and the *Macarthur Advertiser*.

Thanks to the community response to Mac Koala through the Koala Pager, we've received more than 2500 koala sightings which helped Steven to complete his task.

A new student, Tristan Lee, has recently started PhD studies on the ecology, genetics and movements of local koalas and will also contribute to Mac Koala.

Tristan is at the University of Sydney's Wildlife Health and Conservation Centre in Camden and lives in Bradbury.

He has a deep appreciation of our bushland and hopes that his research will help develop management strategies to ensure the long-term survival of local koalas.

Tristan writes: "In future weeks I will

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discuss the project further, but as an introduction I will consider a broader issue raised by this research: the preservation of our natural environment.

"The most effective way to save our local koalas, and other native species, is to preserve their habitat.

The Georges River Nature Reserve and Dharawal State Recreation Area are two extremely important areas of natural bushland, providing habitat for a variety of plants and animals.

"I want to help people realise how lucky we are in Campbelltown to have such valuable, relatively unspoilt bushland so close to us.

"In the late 1980s and 1990s, the koala habitat in pristine bushland beside O'Hares Creek at Wedderburn was threatened by a proposed housing development.

The then Liberal State Government approved the development, and trees were

cleared, roads were created and lots were named for sale.

Fortunately, a sustained campaign by the local community and considerable media attention eventually forced the plan to be abandoned.

"Two things can be learnt from this: first, how easy it is to lose areas of natural beauty, and second, the effectiveness of public protest.

"We have to remain vigilant and to oppose future development that will damage native bush.

"Although we may need more development to accommodate Sydney's expanding population, the solution should be to clear our untouched native bush.

"We don't own our natural environment, we are part of it.

"Once we lose it, it's gone forever."

Report all koala sightings on the 1100 9962 9996.

Pager sets off early hunt

27/6/07

By Dr Robert Close

THE koala pager had been strangely silent for days before it rang recently at 3.30 in the morning.

A policeman returning home had spotted a koala in the middle of Appin Road, midway through the spotted gum forest. When he stopped, the koala climbed a tall, spotted gum beside the road.

We are not aware of any breeding females in the spotted gum forest, so we assume the koala was a young male on his travels.

Plotting the movements of such animals is important for our studies as it provides information about corridors for dispersal and how koala populations expand, so we were anxious to determine if the koala was safe and whether it was tagged.

Half an hour later, therefore, but with some

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trepidation because of the speed of the traffic and the narrow space between trees and road, I was scouring the location with a spotlight.

But to no avail: the animal had vanished.

Our data predicted, however, that the koala will be heading south, generally following the course of the Georges River, so it is likely to be seen on Appin Road again. Tagged koalas, Ricky and Robert, were killed on the road at almost the same spot, while another, Steve, was hit where the Appin-Bullfinch Road crosses the Georges River.

A fourth, Dan, survived the traffic and was last seen at Douglas Park.

We ask drivers on Appin Road to be on the lookout for small, grey shapes beside or on the road.

Meanwhile, back at Kentlyn, our radio-collared June has been spotted with a small head peering out of her pouch.

June is one of the late, great, Shirley's many cubs and is herself a grandmother.

For some years, she has been living mostly in the retirement village beside Kentlyn Primary School and her daughters, Vicki, Shy and Mishka, and her grandson, Reg, have regularly attended the school.

In recent times, however, she has ventured closer to the Georges River and we are anticipating that a territory has become available to her in perhaps more desirable real estate. On the other hand, her daughters may be nudging her out of the retirement home. Time will tell.

Report koala sightings on the UWS koala pager on 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, July 4, 2007

Note:

No column published on this date

Devils in dire danger

By Dr Robert Close

11/7/07

ONE of the saddest films ever made is of the last known thylacine (also known as the Tassie tiger or wolf) that died in captivity in 1936.

The thylacine, of course, is a marsupial that was independently moulded by evolution into an astoundingly dog-like form.

Its extinction is a terrible blot on Australia's name. Unfortunately, we heard at the Australian Mammal Society's annual conference recently that the Tassie devil is also headed for rapid extinction caused by a facial tumour that hideously distorts the devils' faces and always kills them.

Cancerous cells are spread when devils fight over food. Such infectious cancers are very rare and this one has now spread across the island except for the western edge. It is just a matter of time before the disease kills every devil on the island.

Normally in epidemics, there will be some individuals whose genetic disposition gives them some immunity. That is, the guardian cells of the individual's immune system recognise marker molecules of the invading cells as foreign and then kill them.

Researchers have shown, however, that the devil's immune system cannot recognise the tumour cells as foreign and so they grow unchecked. There are no immune individuals because the devil is so inbred that all animals

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have the same limited immune systems.

The disease therefore will continue to spread as long as infected animals continue to make contact with uninfected animals. The only hope is that some groups will be isolated from the infected animals by some sort of geographical barrier until the disease kills all the others and then disappears itself through want of carriers.

Sadly, we cannot guarantee that there will be such isolated groups unless we take uninfected devils into captivity and hold them until the disease runs its course.

At present there are very few captive devils; many more are needed to maintain what little genetic variability remains. These captive animals would then be used to regenerate the wild population, but this would require a quarantine period of perhaps 10-20 years to be sure that the disease had gone.

Such a program would require a large and sustained commitment of funds.

So far, funds are all short-term promises.

Is Australia prepared to lose another unique and famous mammal?

Report koala sightings on the UWS pager 9962 9996.

Why they are inbred

MAC 18-7-07

By Dr Robert Close and Tristan Lee

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LAST week we discussed the infective cancer killing wild Tasmanian Devils.

This cancer is so horrific because the devils' immune systems cannot detect and destroy the cancer cells. All devils so far tested are genetically similar, with none surviving once infected.

Identifying and maintaining genetic diversity within populations is therefore vital in wildlife conservation.

Tristan Lee, a PhD student from the University of Sydney and now a co-author of this column, will be determining the genetic diversity of koalas in Campbelltown and across the Sydney basin.

He will analyse DNA samples that we have collected (and are still collecting) for the past 15 years from the koalas that we have ear-tagged and from all the roadkills and dogkills that the community has reported to us.

Tristan will, we hope, find that we have a genetically diverse koala population able to survive challenges, such as a disease outbreak.

This is because a genetically diverse population will have at least some members whose immune systems can fight new threats. These resistant individuals will have slightly different versions of immune system genes that are effective against the disease. If there are no such individuals there will be no survivors. The population will become extinct.

A simple and rather extreme way to visualise the importance of genetic variation is to imagine a new

fatal virus emerging that infects only people who have blue eyes.

All people with blue eyes would die, but humans with other eye colours would survive and continue the species.

However, if the human population lacked genetic diversity for eye colour, and we all had blue eyes, then the disease would infect us all and cause our extinction.

We humans have our own sub-conscious ways of maintaining our genetic diversity and thus preventing inbreeding because we tend to select a partner with a different genetic profile from our own.

In one research trial, when women sniffed T-shirts worn by a group of men and ranked them on "attractiveness," they consistently selected the shirts of the most genetically different men!

Tristan's research will tell us whether our koalas are inbred or have a system equivalent to the smelly T-shirt method of maintaining genetic variation!

Inbreeding is potentially a problem because our Campbelltown female relatives tend to stick together and the male koalas live long enough to breed with their own daughters and granddaughters.

Report koala sightings on the UWS pager 9962 9996.

No koalas in sight

25/7/07

By Dr Robert Close and Tristan Lee

MAC KOALA

THE koala pager has been ominously silent for two weeks.

Even though it's nice to have uninterrupted weekends, we are concerned by the lack of calls because by late July, the battle of the male koalas should be well under way.

Juveniles will be sent packing and four-year-old males should be beefing up and developing the scent gland in the middle of their snowy-white chests that marks their reproductive maturity.

This gland is about the size of a 50 cent piece and appears as a dirty-grey patch. It produces a cocktail of about 30 chemicals and when these secretions are rubbed on the bark at the base of trees they presumably provide a lot of information about the male to other males and females.

In last week's column, we quoted the 'smelly t-shirt' experiment that indicates that humans rely on smells to some extent in choosing their mates.

By producing a calling card combination of 30 compounds, male koalas presumably can indicate very clearly their family genetic history and probably their age, weight, strength, health and origin as well. Whether the female koalas choose their mates on the basis of these smells or on the quality of the

males' bellowing we don't yet know.

We do know, however, that our female koalas will leave their normal territory and rapidly move a kilometre or so to meet a male of their choice.

Another reason for the lack of reports of koala sightings may be that the recent heavy rains have somehow postponed the normal koala season and all the animals are lying low and gorging themselves on the fresh foliage.

Alternatively, people may not have been out walking in the bush as often as they usually do and therefore not spotting koalas.

Whatever the case, we hope that calls will increase over the coming weeks.

■ Don't let the weather keep you from attending the Campbelltown Arts Centre on Thursday, July 26 at 7pm when Dr David Keith will present a talk 'Vegetation of the Dharawal - changes over time'.

This is the first talk of the Jubilee Macarthur heritage series and will be a marvellous insight into how our local vegetation has changed.

Report koala sightings on the IWS pager
9962 9996.

Bears on the move

By Dr Robert Close and Tristan Lee

THE anticipated upsurge in koala sightings that usually begins in late winter may well have started, as a large, untagged male and two females with large cubs were reported from Kentlyn/Ruse this week.

One of the mother/cub duos vanished into Kentlyn Primary School where, no doubt, they will entertain the students this week.

And 100 kilometres further south in the Tarlo River National Park, Jeremy junior, a young male koala originally of St Helens Park, has also started to stir.

Jeremy has featured in several Mac Koala columns since October last year, when we translocated him and Ruse's Flossie to the national park to start a new colony.

Unfortunately, Flossie's radio-collar failed and despite many searches we have been unable to find her or the collar.

Jeremy, however, has stayed in contact and twice a week, local Tarlo resident, Jorgen Nielsen heads off with his radio receiver to track him down.

Jeremy originally moved about 3 kilometres from the release site and settled into a fertile valley where he has spent the past six months.

We are pinning our hopes of finding Flossie on Jeremy leading us to her as the breeding season approaches.

So Jorgen was delighted to find that Jeremy has

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recently left his lonely valley and headed back towards the area where Flossie was last seen.

Jorgen also discovered how difficult it can be to see a koala even when you know it's close by.

Jeremy's radio signal was clearly indicating that he was in a clump of five eucalypts but no matter how hard Jorgen peered into the tree-tops, he could not spot him.

So Jorgen asked himself, "What would Robert do in a situation like this?" The answer, of course, was "Have a good sit-down!"

So Jorgen sat himself down but no sooner had he done so than he heard "plop . . . plop . . . plop" in the grass beside him as Jeremy rained pellets down upon him.

So Jeremy gave away his position but no doubt enjoyed himself in the doing.

Jorgen reports that Jeremy looks exceedingly healthy and we look forward to catching him for his first annual check-up in September.

The experimental translocation has shown so far that translocated koalas will feed on unfamiliar eucalypts, can survive very cold conditions and do not charge randomly around the country side.

If only we could just find Flossie!

Report koala sightings on the UWS pager, 9962 9996.

Enviro law gets cross-examined

8/8/07

By Dr Robert Close and Tristan Lee

MAC KOALA

THOSE interested in saving our local bushland will enjoy a special talk at the Campbelltown Arts Centre this week.

Dr David Farrier will present a talk on *Is environmental law any use? Part 3A etc and biobanking* this Thursday, August 9, at 7pm.

This will be the second in the series of environmental heritage nights run by the Macarthur branch of the National Parks Association in conjunction with UWS and the Campbelltown Arts Centre.

The topic is vital for those interested in conserving bushland. That should include most of the population of Campbelltown because access to relatively unspoilt bushland is one of the major reasons that most of us are proud to live here.

In the first talk in the series, two weeks ago, we heard a fascinating account from Dr David Keith on the hanging swamps that supply the Georges River with fresh, clean water all year round and also support a vast array of native plants.

David had conducted his PhD research on the swamps 20 years ago and recently returned to see if there had been any changes. He was able to find 55 of the 60 original plots that he had studied and reassessed the number of species in each.

Overall he found that about 20 of the species had increased in number, while another 20 had decreased and 30 had stayed the same.

This was a significant change and the ones that had increased were those that grow better under moister conditions. So it appeared as though the swamp areas were increasing.

He was able to test this idea by comparing aerial photographs from 1961 with recent ones.

The photographs clearly demonstrated that the swamps were now more extensive.

At first glance this finding seems counter to the well-known global warming scenario.

Certainly local temperature records show a general increase over the years which we might expect would increase evaporation rates.

However, evaporation rates measured locally have been consistently decreasing, perhaps due to decreased wind conditions.

Whatever the cause, it's good news for the Georges River because its lifeblood, the swamps, are surviving.

■ On the koala front, two animals had to be chased off the road recently by motorists, one near the Causeway on consecutive nights on Wedderburn Road and the other at Broughton Pass. So it appears that they are now on the move. Motorists be alert.

Report koala sightings on the UWS pager, 9962 9996.

When appearances confuse

15/8/07

By Dr Robert Close and Tristan Lee

MAC Chat last week mentioned that we had objected to the headline "Bears on the move" that was assigned to our previous column.

Our concern has a long history and arises from a battle raging against people who think that marsupials are more primitive and less successful than the placental (eutherian) mammals. This latter group comprises all mammals except marsupials and the monotremes (echidna and platypus).

When white settlers first came to Australia they found our marsupials to be strange and unusual but gave them names that likened them to animals with which they were familiar. Accordingly, the thylacine was called the Tasmanian tiger or wolf, echidnas were hedgehogs, quolls were native cats and tiger cats, while the small marsupial carnivores were marsupial mice.

Even today we still meet old-timers who refer to wombats as badgers and koalas as bears.

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Early artists were also influenced by the animals with which they were familiar, so some early drawings of koalas looked distinctly monkey-like while kangaroos were given dog-like faces.

Many scientific names allotted to marsupials also relate to each species' placental look-alike. So the koala was named *Phascolarctos cinereus*, the ash-coloured pouched bear, and the eastern quoll was named *Dasyurus viverrinus*, the ferret-like hairy-tail, while the thylacine's *Thylacinus cynocephalus*, means the dog-headed pouched dog.

Early scientists, including the great Charles Darwin, assumed that these "new" mammals must be inferior to those of the northern hemisphere because the pouch and various aspects of their anatomy and physiology looked primitive.

In addition, the speed with which the fox, cat and rabbit established themselves across the continent

signified the supremacy of the placental mammals over their marsupial competitors.

However, most biologists now consider that the marsupial pouch system is particularly suited to Australia's unpredictable climate because pregnancy is so short and the young can be discarded in times of drought before it makes too many demands on its mother.

Other aspects of marsupial biology are also adaptive to uncertain climatic conditions.

Fossil research also suggests that a placental mammal occurred in Australia 55 million years ago but died out whereas marsupials flourished.

Likewise many Aussie marsupials are doing well despite competition from placental herbivores and carnivores. Our special mammals, therefore, deserve their own names without reference to placental mammals. The name koala is just fine.

Report koala sightings on the UWS pager, 9962 9996.

Harrison settles in

By Dr Robert Close and Tristan Lee

MAC KOALA

22/8/07

IN November 2001 we were called out to Harrison Road, Kentlyn, where a rather sad young koala was perched in a small, but very spiky, palm tree.

His coat was brownish so we were a little worried about his condition.

He weighed only 4.5 kilograms, so was about 18-24 months old and had probably just left his mother.

We then gave him his individually coloured eartags and sent him on his way.

The person who spotted him used her naming rights to call him Harrison after the street where he was found.

This is a great name because it's easy to remember and tells us something important about the animal.

As we now have more than 130 tagged animals, it's sometimes difficult to remember which is which.

It's always exciting to release a newly tagged koala because we don't know if or when it will turn up again.

About 60 per cent of released animals are reported again and these provide us with a lot of information about movements and preferred habitat. Tristan, in fact, will be using this information as part of his PhD studies.

Harrison, however, was not sighted again until August 2005 and this time he was just around the

corner, beside Georges River Road, a distance of only a few hundred metres.

He was now almost four years old and we wrote in a Mac Koala column at the time that: "Either he's already settled into a territory or is about to start his travels. Whatever the case, it's fascinating to discover that he's been living in the same area for so long without being reported to us".

Last week Harrison was seen again, this time in Minto Heights, a distance of about three kilometres from his capture site.

He is now six years old and would weigh about 10 kilograms. After surviving in the area all this time he'd know how to avoid cars and dogs and would be full of confidence and ready to breed.

No doubt residents of Minto Heights will hear him bellowing on still nights as he warns other males to keep away and tells local females that he's the man.

Let's hope he'll prove as attractive to the ladies as his namesake Harrison Ford.

We look forward to hearing further reports of Harrison to verify that he has actually settled down or is still travelling.

Report koala sightings on the UWS pager, 9962 9996.

Friends celebrate sticking to insect for a year

THE FIRST annual general meeting for the Friends of the Long Lost Phasmid Insect will be held on Saturday, August 25, from 2-4pm, at the Campbelltown Arts Centre.

The group will also celebrate turning one, with a Lord Howe Island stick insect and phasmid update and live insects and spiders.

The friends are committed to saving the critically endangered stick insect *Dryococelus australis*.

Bugs may not be your cup of tea, so if you are more curious than interested, come along and find out more about them.

Details: Stephen 4628 5868 or sfallenb@bigpond.net.au.

New find is a darling

29/8/07

By Dr Robert Close and Tristan Lee

MAC KOALA

LAST week we reported the rediscovery of koala Harrison who was named because he was originally located in Harrison Street, Kentlyn.

We mentioned that the name made it easier for us to remember him from the other 130 tagged koalas.

So this week when we ear-tagged a young female koala in Darling Avenue, Ruse, her name, naturally, became Darling.

A cuter animal would be harder to imagine.

She was only six months old, weighed one kg and was still travelling on her mother's back and drinking milk from the pouch. Her mother is Charlotte, whom we have been radio-tracking for the last two years until her radio-collar, for some unknown reason, suddenly stopped transmitting several months ago.

Although we have occasionally seen her since in her territory that is bounded by Darling Avenue and Old Kent and Georges River Roads, she has never been in a tree suitable for a catch until this week.

Even then, we almost lost her as she was remarkably agile despite the weight of Darling clinging doggedly on her back. Darling should stay with her mother for at least another six to 18 months till she grows to about five kg.

That is the weight of another young untagged female,

Susan, who we encountered not far from Darling Avenue. She is likely to venture into houses that are close to the bush at Ruse.

It was also time to catch the old lady, Lyn, to change her radio-collar.

Lyn is at least 14 years old and occupies the area immediately north of Charlotte's across Old Kent Road. Her pouch was empty, but she is in relatively good condition and may breed this year.

Other calls came in to report Cramar in Ironside Drive, St Helens Park, and a koala in the median strip of the F5 freeway adjacent to the Bargo exit.

We have had several sightings at that particular spot, and ask motorists to be vigilant there.

Another call reported a dead koala on the first Campbelltown exit road from the F5.

It turned out to be a dead cat.

Still, we would prefer to have an occasional mistake than to miss a record. So keep the calls coming in.

Note too, that we now have a blog in the Advertiser website, www.macarthuradvertiser.com.au.

Report koala sightings on the UWS pager, 9962 9996.

Gorilla rescued from

5/9/07

By **Dr. Helen Hogg and Tristan Lee**

MACQUARIE

THE members of a koala research team from the University of Queensland, who were on a field trip to the Moorebank area, rescued a gorilla from a construction site in the Moorebank area on the north-east coast of Moorebank.

An unlicensed male koala, converted by crows, had apparently scaled the fence and taken refuge in a tall tree on the site, 500 metres from the nearest koala habitat.

The research team on the construction site spotted the flapping wings and chose the rather unappetising name "Gorilla".

Later on the day, so Gorilla it became.

Fortunately there was a heavy ricker on the site

so Keran was able to capture Gorilla in a net. Keran is normally our high range koala, so he enjoyed the heavy and dense of the tree. Gorilla weighed in at 7.5kg and is probably about 3-4 years old.

He would have been on his travels, probably following the general direction of the Georges River. His predicament, in fact, is very similar to that described in our macarthuradvertiser.com.au blog site for the legendary Constable John, who was also found at Moorebank.

Normally we try to release koalas in the nearest

muder of crows

5/9/07

natural bushland. However, both the Constable and Gorilla were heading northward and research indicates that dispersing male koalas seem to choose a direction and keep to it rather than move randomly.

So we feared that both the Constable and Gorilla would have headed in to Liverpool if we'd released them at Moorebank.

Consequently we decided to release both beside the Georges River at Campbelltown.

They would therefore be able to travel several kilometres in either direction beside the river in known koala habitat without encountering unusual difficulties.

We look forward to hearing reports of the progress

of both these koalas. In light of re-sightings, Hamson turned up again for the second time in two weeks, after previously being reported only three times in six years. This time he was supervising a hazard reduction burn at Minto Heights.

People interested in the history of Malara at Campbelltown and their role in environmental issues should hear Julie Sheppard's talk on "The EPA and its role in the history of conservation in NSW, particularly in the Macarthur area".

This will be held at the Campbelltown Arts Centre at 7pm on Thursday, September 6.

Report koala sightings on the UWS page: 9962 9996.

Courtney wants a

By Dr Robert Close and Tristan Lee

SPRING Creek rises in the heights of Ambarvale then runs across the Rosemeadow playing fields and Appin Road before plunging into bushland and eventually joining the Georges River beside the causeway in Wedderburn Gorge.

The bushland section of its journey is the home of two of our radio-collared females, Martine and Courtney, and three, ear-tagged males, Alex, Barney and, more recently, Cramar.

In the past week or so the joint has been jumping. The sequence began when we captured Courtney to change the batteries of her radio-collar.

She was in good condition but her pouch was

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empty and the milk gland was shrunken. This was unusual, because most of our Campbelltown koalas breed every year.

We wondered whether she may not be too keen about Alex, Barney and Cramar. Maybe they're too closely related (Tristan's DNA studies should tell us this). We remembered the time two years ago when, perhaps in search of another male, she crossed Woodland Road and charged into suburban Bradbury.

We eventually recaptured her in a street tree where an amused audience of residents at one

bit of courtship

12/9/07

stage saw Robert straddling a limb of the tree but with Courtney suspended underneath the limb hanging grimly onto his calves with her enormous, sharp claws.

A few days ago, after we changed Courtney's collar, we received a call from a resident who noticed a koala walking up Moncrieff Close.

It proved to be Courtney, again leaving the bush and heading into suburbia.

We returned her to Spring Creek, but if she is searching for a new male she may venture into the housing area again. Male koalas were close by, however, as Jeff Hunter reported seeing a male koala, with a yellow ear-tag in the left ear and white in the right, in a tree beside Ironside Drive.

This was Cramar, a young male of three years, perhaps too young to breed.

A few days later, Robert Zolija also rang to report a koala in Ironside Drive. This animal, however, had a yellow tag in the right ear and a white in the left.

This is the tag combination of Reg, son of Vicki from Kentyn and grandson of the legendary Shirley (see our blog site on macarthuradvertiser.com.au).

So far he's moved more than five kilometres on his travels.

We hope residents will be on the lookout and report his and Courtney's movements to us.

Please report any koala sightings on the UWS pager, 9962 9996.

A sad but natural death

19/9/07

By Dr Robert Close and Tristan Lee

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ANOTHER of our old koalas died last week, 11½ years after we first caught her, as a 4-year-old, in the grounds of Kentyn Primary School; hence her name, "Lyn", and the names "Ken" and "Kent" of her first two male cubs.

She was 15½ years old, a grand age, considering that she lived her life among the dangers of the suburban fringe.

At first, however, we suspected foul play.

A faint radio signal led us several hundred metres from Lyn's usual haunts to the rear of a Kentyn property where her body was discovered beside that of a fox!

Forensic entomology indicated that the fox had died earlier than Lyn whose post-mortem revealed no bite marks, bullet holes or any signs of trauma.

All Lyn's major organs seemed healthy except that her stomach and intestines were empty.

She had a huge tapeworm, of a species found only in koalas, in her small intestine, but that is expected in all mature koalas.

The only damage we could see was an ovarian cyst the size of a small walnut that would explain why she has not produced offspring since 2004.

So what legacy has she left us from 11½ years of study?

The answer is that we can now fit the details of her life into a jigsaw puzzle about how koalas live

and what they require for successful lives near Campbelltown.

We have mapped her territory and tree preferences in a 25-hectare area bounded to the south by Old Kent Road and to the west by Darling Avenue.

Initially she would cross Georges River Road to visit Kentyn Primary School, until Shirley's daughter, June, nudged her out.

We know that she produced three male cubs, only two of which we were able to ear-tag.

One of these disappeared at weaning and the other, Kent, appeared later at Minto Heights.

Of her two ear-tagged female cubs, one vanished and the other, Georgie, has established a neighbouring territory beside Peter Meadows Creek.

Unfortunately, Lyn threw her collar twice, so we have no details for almost 2½ years of her life.

Consequently she may have produced seven cubs since her first capture.

Tristan's DNA studies should tell us who she mated with, and her skull will reside for posterity and future research in the Australian Museum.

Vale Lyn, we'll miss you.

Please report any koala sightings on the UWS page, 3362 9996.

Why firewood's not cool

26/9/07

By Dr Robert Close and Tristan Lee

MAC KOALA

OUR tracking team members check on each of our radio-collared koalas every two weeks.

They encounter many of the strange and often damaging ways in which people behave in Campbelltown's bushland.

One of the most common abuses they report is the removal of timber for firewood.

Many people would consider this practice to be quite harmless and that the bush is a resource for harvesting.

However, we recently attended a presentation by a biologist who demonstrated the value of hollow logs to the yellow-footed antechinus, a small marsupial predator.

In fact it is clear that a wide variety of native animals depend on hollow logs and dead wood to survive.

Dead trees and branches have much more value than many people realise.

It may look like waste or seem useless, but dead wood is a critical part of the ecosystem.

Fungi and termites that are active in decaying wood produce an important source of nutrients for the soil.

Removing the wood removes this essential step in nutrient recycling.

Secondly, the value of tree hollows for nesting birds is obvious.

Not so obvious is their value for sheltering possums, gliders, many bat species, the carpet python and our own endemic broad-headed snake,

and for sheltering a food source for goannas.

Logs and dead wood are needed to help some species such as echidnas, possums and native rodents move around and disperse.

The logs provide housing, shelter and sources of food.

Decaying wood and bark are particularly good sites for insects, and birds and other insect-eating animals take advantage of this.

Twenty-one species of woodland birds have been listed as threatened by the removal of firewood.

Bush rock is also important for the same reasons as dead wood. It provides a home and shelter for a wide variety of native species.

The taking of dead wood or bush rock is illegal and should be reported to Campbelltown Council. Many people already know that we shouldn't take wood from bushland, but some people still do so.

Houses can be heated without using the dead timber that will certainly be home to other animals and an important part of the woodland ecosystem.

Sadly, this ecosystem is suffering badly in south-western Sydney.

So, please - don't take logs from the bush.

It's illegal, irresponsible and ecologically damaging.

Please report any koala sightings to the UWS pager, 9962 9998.

Daily sightings logged

By Dr Robert Close and Tristan Lee

IT'S been good to see the koala pager so busy over the past week.

There has been at least one call every day.

Last Saturday we responded to reports of a koala under attack from birds in St Helens Park.

For whatever reason, harassment by birds is a fairly common occurrence at this time of year.

Fortunately, when we got there the birds had gone and the koala seemed fine.

The following day a mother and baby were seen by a keen koala spotter at Kentlyn Public School. The koala was identified as Vicki.

Vicki has been a frequent visitor, and now seems to be introducing her child to the school.

Last Monday proved to be another busy day.

While out performing our regular radio tracking, we received a call about a koala on a property in Minto Heights.

The koala was seen walking between trees.

When we arrived we found a young male perched high up a tree. He was eventually identified as Reg.

Reg is a young male searching around for a new territory to call his home.

Tuesday produced another sighting in St Helens Park, and the following day a koala appeared on the back veranda of a house in Kentlyn. Thank you to the residents there who kept their dogs inside until the koala had continued on its way.

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Last Thursday a mother and baby were sighted on a property on Riverview Road in Kentlyn.

The mother and baby disappeared on Friday before showing up again in the same road on Saturday.

With so much koala activity, we would like to remind people to keep an eye out for them, particularly if you have dogs.

Dog attack is a leading cause of death for our koalas, and it's not a pretty sight to have to deal with.

Koalas can also make quite a mess of your dogs. So to protect koalas as well as your dogs, please keep dogs inside if you suspect a koala is on your property.

Thank you to everyone who has called the koala sightings hotline.

Without your calls, we wouldn't be able to keep track of and learn more about our koalas.

Your calls ensure we can continue to research and work to ensure the population's long-term survival.

We are always interested in any koala sightings, alive or dead.

Please report any koala sightings to the UWS pager, 9962 9996.

Little puggle eventually left

By Dr Robert Close and Tristan Lee

A PRIVILEGE of working with native mammals is that we meet many wonderfully warm-hearted and patient people who care for injured or juvenile animals and often have special knowledge we seldom find in books or scientific papers.

Like Ann, who had been given a young, hairless echidna pup or "puggle" to raise. Echidna mothers don't have nipples so puggles lick the milk directly off the skin in the shallow pouch.

The puggle learned not only to suck the milk from Ann's cupped hand but also let Ann know she wanted more by Ann's hand with her snout. Eventually, after learning how to eat and find natural food, the puggle reached almost full-size with a full brace of spines and Ann felt it was time to return her to the wild.

So she took the echidna 2.5km from her home to where there were plenty of ants and other insects, and allowed her to acclimatise.

Ann felt that the echidna relied strongly on smell, so she made a circuit from Ann's nest to Ann's nest and shuffled her feet to leave a smell trace for the echidna to follow. Eventually Ann left it and returned home alone, but some days later saw the echidna waddling up the road towards her house, whereupon it climbed into her lap and tap-tapped on her hand for food.

Quite overcome, Ann then allowed the echidna to live under her house and come up for food when it liked. After six months of supplementary feeding, the echidna decided it was ready and wandered off into the great unknown, leaving Ann sad to have lost her friend but glad that she'd returned to the wild.

The story leaves us pondering whether the echidna had actually followed Ann's smell-trail all the way home.

As part of the NPA/UWS lecture series, Dr Andrew Lo will be speaking on "An Economic Perspective on Ecological Sustainability" at the Campbelltown Arts Centre at 7pm tomorrow Thursday, October 11.

Report local sightings on the UWS paper 9962 9996

Take us to your Flossie

17/10/07

By Dr Robert Close and Tristan Lee

MAC KOALA

LAST Saturday we drove down to Tarto River National Park where koala Jeremy, formerly of Campbelltown, was due for his first annual check-up.

Regular readers of this column will remember that in October 2006 we took two young Campbelltown koalas, Jeremy and Flossie, down to the park and released them in an area of their favourite species - grey gums and stringy-barks - with radio-collars.

We wanted to establish a koala colony in an area where koalas had not been recorded for 40 years, and to learn how young koalas established themselves in a new, unfamiliar area.

Our first aim was of interest to the local landcare group, too. It had been planting bushland corridors with trees it thought koalas would feed on in the hope that koalas would move freely through the district and re-establish their former range.

The group also wanted to know whether the park was still capable of supporting a koala population.

Unfortunately for us, Flossie's radio-collar ceased to function after about two months. Although we saw her afterwards, we were unable to capture her and she disappeared.

Despite intensive searches, we haven't found her yet.

A third animal was also seen in the vicinity.

At that time, Jeremy weighed 6.5 kilograms and would have been no match for a large local male.

Jeremy shifted to a fertile creek-line about three kilometres away and spent the winter there, making occasional short forays into neighbouring areas but always returning.

This spring, however, his circular journeys have grown longer and longer,

and over the three days before our check-up trip, he had travelled 1.7 kilometres and was four kilometres north of his winter site.

The landcare group came out in force for the catch, which fortunately was quick and easy.

Jeremy was in great condition and now weighs 8.6 kilograms, an increase of 2.1 kilograms.

This growth, despite all his travelling, demonstrates that the area can still support koalas.

Moreover, the records of his tree-usage show he prefers his old favourites - the grey gum and stringy-bark - to the species that the landcare group had been planting. So it will now plant a different seed mix.

As for Flossie, we hope that Jeremy, with his new size and strength, will now lead us to her.

Please report koala sightings on the UWS koala pager 9962 9996.

Three days, 2.8km and going strong

24/10/07

By Dr Robert Close and Tristan Lee

MAC KOALA

LAST week we reported that we recollared Jeremy, the young koala that we'd translocated to Tarlo River National Park.

The recapture point was 4km north of where we'd originally released him and Flossie, his female partner.

At that point, Jeremy appeared to be heading north into rugged terrain which was becoming increasingly difficult for locating his radio signal.

So we decided to bring him back to the site where we'd last found Flossie before her radio transmitter failed, in the hope that he'd lead us to her.

Jeremy, however, had other ideas and immediately headed north again.

In one three-day period he moved 2.8km as the crow flies.

Given that the terrain is very rugged, his actual journey would have been considerably longer.

Jeremy has shown us, therefore, that the area can sustain not only rapid

growth of a koala, but also can provide the energy for extensive movement.

Our problem now will be to continue to find him if he continues to travel so fast and far in such terrain.

The radio signal can be difficult to locate in hilly, thickly vegetated country and sometimes the tracker has to be closer than 1km to detect the signal.

We've also had several other reports recently from koala populations south of Campbelltown.

A koala was reported 20 km southwest of Flossie's and Jeremy's release site. The observer did not see a radio collar or ear tags so we think it was a local animal.

Then a huge, half-blind, 10.2kg male was brought from Windellama to the University of Sydney's Wildlife Health and Conservation Centre at Camden.

Tristan will report next week on the difficulties of keeping this fellow in

care. Next an animal with a spinal deformity was taken into WIRES care from Yerinbeel and another with a fractured fore-limb from Benima.

Even though these animals were injured, their appearance indicates an apparent recovery of koalas south of Sydney.

This is a fascinating and important phenomenon.

Closer to home a large, untagged koala was reported from near the Wedderburn causeway, and we were also called by a builder in Peakhurst who reported seeing a koala in the property adjacent to where he was working.

This was an exciting report because it meant that the animal must have crossed the Georges River.

However, close inspection revealed a big brush-tailed possum sitting cleverly on his tail!

Please report koala sightings on the UWS koala pager 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, October 31, 2007

Note

No column published on this date

Very sad critter had badly infected eyes

7/11/07

By Dr Robert Close and Tristan Lee

THREE sick koalas have come in during the last three weeks to the University of Sydney's Wildlife Health and Conservation Centre at Camden.

First to arrive was a huge, 10kg, male koala, named "Dell", who was found on a property in Windellema, east of Goulburn in a sick and sorry state.

Dell's eyes were so severely damaged by chlamydia, a common disease of koalas, that he was almost blind and could not see his way around his enclosure.

In his first few days with us Dell was a very angry koala, yelling and growling as we tried to secure him to give him eye drops.

Fortunately, he is now much better behaved, probably because he is used to the procedure and isn't in a lot less pain.

He has responded well to treatment and should regain sight in one eye.

Dell's exact future is unsure, but he will probably go to a wildlife park nearby.

Our next patient, found in Yerinbool, had a spine so severely curved that he resembled "Quasimodo", the hunchback of Notre Dame.

Unfortunately, he died shortly after arrival; his curved spine probably restricted his breathing quite significantly, which we believe caused him to suffocate, probably due to the stress and cramped conditions of transit.

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Finally, a young male koala with a broken arm was brought in from Berima.

The arm should mend and his chances of being released back into the wild are good after a few more weeks with a local wildlife carer.

We'll keep monitoring him to see how he goes.

Keeping koalas in care is time-consuming and difficult.

Apart from the administration of medication, we have to continually supply fresh food, which involves daily searching for suitable foliage.

Kentyn residents may have noticed us collecting leaves in bushland or on the roadside.

We need to collect large amounts (think a car boot full) because our koalas may not like a particular tree.

Consequently, we need to offer them a wide range to choose from each day.

Thanks to all those people who have seen koalas recently and called the hotline.

This is always a busy time of year, but 2007 has been exceptionally busy. Is it another sign that our local population is expanding?

Or are people getting better at spotting koalas?

Report koala sightings on the UWS koala pager 9962 9996.

Death at black spot

By Dr Robert Close and Tristan Lee

THE pager message which rang through at 3pm on Saturday afternoon was stark: "Pls ph John re has found a koala on side of road is still alive but injured."

We phoned John who told us that the koala was beside Appin Road in the middle of the spotted gum forest, south of Campbelltown.

John and his friend had first seen the koala in the middle of the road at 4.30am as they were heading off for a day's fishing.

They stopped and chased him off the road into the bush then continued on their way. Coming home, they noticed the koala again only two metres from the road, and called the pager.

We arrived soon after to discover that the animal had a badly injured eye, but was still able to climb a nearby iron bark on our approach.

Fortunately, he stopped climbing just within reach of our six-metre catching pole and we were able to bring him to ground.

We then took him to the Wildlife Health and Conservation Centre at Camden.

An open day was in progress and the staff examined the injured animal. They found that his injuries were serious. Besides the damaged eye, his skull

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was fractured so badly that as he breathed, air was being forced into the skull, lifting the pieces of skull so that his head appeared to be pulsing.

His jaw was also cracked along its length on one side so that all the molar teeth were split.

The only option was to euthanase him and so bring to an end many hours of suffering.

The site where the koala was originally hit is a black spot for koala deaths and Campbelltown Council has recognised this by installing koala warning signs at either end of the forest.

All of the animals hit have been males and most, like this one, have been 2 to 5-years-old and in their dispersal phase.

The dispersal route appears to follow, in a general way, the Georges River which flows only a kilometre east of the Appin Road. The spotted gum forest also is part of a vegetation corridor that links the four-kilometre gap between the Georges River and Nepean River systems.

So we ask all drivers to be especially watchful and report all sightings to the UWS koala pager 9962 9996.

Virus problem just got worse

21/11/07

By Dr Robert Glase and Tristan Lee

FOR several years scientists suspected that a sexually transmitted bacterial disease, chlamydia, was threatening the survival of koalas in the wild.

Now they think that chlamydia, while still a serious problem for the infected individual koalas, is likely to emerge when koala populations are already under stress.

For example, land clearing in the habitat of a koala population could cause local overcrowding and under those conditions chlamydia could become common; much like the appearance of cold sores after serious sunburn.

A new disease has emerged, however, which could be a greater threat to koalas than chlamydia.

The disease is called koala retrovirus (KoRV) and is believed to be the cause of leukaemia and lymphoma (cancer of the white blood cells) in 3-5 per cent of wild and up to 60 per cent of some captive koalas.

It may also be a direct trigger for chlamydia.

A retrovirus is one that builds copies of its DNA (the code for genes) into the DNA of cells of the host organism, in this case the koala.

The viral DNA then uses the machinery of the host cell to build more copies of the virus which then burst out of the host cell, killing the cell in the process.

One aspect of KoRV is that it can insert its DNA into

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reproductive cells and so can be transmitted to offspring. This in itself is not so unusual as in most animals, including humans, up to 8 per cent of their DNA originates from viruses.

However, these are ancient infections and the DNA has now mutated such that it is no longer actively producing viruses.

What makes the koala situation unusual is that the invasion of the koalas by this virus seems to be very recent.

In fact, the koalas seem to have been infected by a virus that was acquired from gibbons.

The only way that koalas could have encountered a gibbon virus was from zoo animals.

A research finding that is consistent with the whole idea of recent gibbon transfer is that so far only northern koalas have been found to carry KoRV.

That is, the invasion is still so young that the virus is not fully established in the country.

It is possible therefore that Campbelltown koalas have yet to be exposed to the virus and that trouble may be in store.

Report koala sightings on the UWS koala page 9962 9996.

A painful way to go

By Dr Robert Close and Tristan Lee

A CALLER reported last week that there was an untagged koala in his garden in Hamilton Street at Kentyn "looking very unwell".

The animal was first seen walking but when it tried to climb a tree it was so weak it fell to the ground.

Clearly it was in serious trouble, so we took it to the new Wildlife Health and Conservation Centre run by the Faculty of Veterinary Science of Sydney University at Camden.

A vet examined the koala and discovered its teeth were not only worn but also loose.

The wear indicated considerable age, and the looseness was due to leaf matter compacting under the molars and becoming infected.

Normally when a koala grows old, the sharp edges on the molar teeth wear down and become less efficient breaking open leaf cells to release nourishing sugars, oils, proteins and water.

To make up for the loss of efficiency, an aging koala has to spend more time chewing.

In addition for our old koala, eating the eucalyptus leaves would have been so terribly painful that it would have further hindered his ability to crush enough leaves to survive.

He was, in fact, slowly starving and dehydrating.

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28/11/07

We found him in the final stages of his decline and the vet decided that euthanasia was needed to end his suffering.

Most plant-eating mammals do not suffer for long when they grow sick or old or are injured.

Predatory animals such as dogs and foxes usually quickly find these disadvantaged animals and end their suffering.

Koalas like the one described here, however, can stay out of trouble in the trees surrounded by food and so live on despite disease and injury.

What seems to happen to the old males is that younger, fitter koalas with good teeth drive them out of prime areas where females live.

It was no surprise then to receive a call later in the week from another resident of Hamilton Street to say a large koala was feeding enthusiastically in a tree in his garden.

This animal would probably be the new dominant male in the area.

■ The koala is untagged and we would like residents to report his movements on the UWS koala pager 9962 9996.

Irene cops earful

By Dr Robert Close and Tristan Lee

ON A beautiful bend of the Georges River at the border of Airds and Ruse, we captured, in 2000, a female koala that we named Irene after a generous person who funded our educational video *Koala Tales*.

Irene, the koala, was given her personal coloured ear tags and released.

Two years later, and in the same area, we recaptured her with a female cub, Janice, named after the vice-chancellor of UWS, Janice Reid.

Janice, the cub, was also ear tagged and released.

Two years later we found her again, but she had moved 3.5 kilometres along Peter Meadows Creek where she established a territory just north of Peter Meadows Road.

She had with her a cub, Lorraine, that we also ear tagged and released.

Last week we recaptured Lorraine, who had moved two kilometres south along Peter Meadows Creek back towards her grandmother's territory.

Lorraine had with her a female cub, nine months old, that we named Meadow after the creek where she was born.

So we have been able to follow four

and starts a dynasty

5/12/07

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generations of koalas in seven years by opportunistic encounters with ear tagged animals.

This is the second group of fourth-generation koalas that we have studied.

The first group, which we have described in previous columns, is the dynasty of Shirley.

Shirley and her daughter June were radio-collared, a technique which provides us with more information than merely ear tagging, but is much more labour intensive.

Interestingly, Irene and Shirley were neighbours on the slopes above the Georges River.

In the gap between Lorraine and Janice along Peter Meadows Creek lives Amanda, an old koala that we have radio-tracked continuously since 1997 when she was reported crossing Junction Road near Leumeah High School.

Since then she has lived in the bushland beside Peter Meadows Road.

Despite the dangers of the road she has survived and at the age of at least

13 years she is still producing young.

When we captured her last week to change her radio-collar, she was with a large cub that defied our attempts to capture it.

It fought the flag and refused to follow its mother down the tree.

So we had to abort the attempt.

Hopefully we'll find another opportunity to capture and ear tag the cub before it leaves its mother.

■ Report koala sightings to UWS koala pager 9962 9996.

MORE COLUMNS PAGE 99

Most safe, for now

12/12/07

By Dr Robert Chase and Tristan Lee

MAC KOALA

GOOD news, that 80 per cent of animal species in the national parks and water catchments of the southern Sydney basin were safe from local extinction, was released last week.

The news came in the *Threatened and Pest Animals of Greater Southern Sydney* report which described the findings of a four-year joint survey by Sydney Catchment Authority and Department of Conservation and Climate Change of 430 animal species in almost 800,000 hectares of protected bushland.

Exciting finds included the discovery of colonies of koalas and brush-tailed rock wallabies in the Burragarang Valley.

For some years in this column we have reminded bushwalkers to watch out for the rare and beautiful rock wallaby, so it is reassuring to know that a colony survives.

One colony is not enough to ensure the species survival, however, so we review our plea for reports of sightings of this knee-high, bushy-tailed wallaby that negotiates rocky cliffs and rock jumbles with agile ease.

We predict that the animals will eventually be found beside the Nepean River, upstream of Douglas Park.

It was also reassuring that another population of koalas was discovered.

Even though the Campbelltown koalas are breeding well, they are still vulnerable to fire drought and land-clearing.

Consequently, an additional population in the

relatively pristine and protected Burragarang Valley is a great safe-guard.

Volume 4 of the report is *The Fauna of the Metropolitan, O'Hares Creek and Woronora Special Areas*.

These areas are south and east of Campbelltown and include the catchment areas of Cataract, Cordeaux and Avon dams.

The survey showed that koala numbers are healthy in this area.

In addition the area was the site of the survey's only sighting of the spotted-tailed quoll.

This animal, formerly known as the tiger cat, is the largest mainland marsupial predator was seen near Belambi Creek in the Cataract Dam catchment.

Details of the survey can be found on <http://www.environment.nsw.gov.au>.

Closer to home, we managed to capture Amanda's spirited cub that last week had refused to respond to the flag.

This time we used a loop on the end of the catching pole.

In order to avoid the loop going round his neck, the cub had to retreat down the tree and eventually into our waiting hands.

We named him PM (for Peter Meadows Creek) and released him with new ear tags.

We hope readers will report his whereabouts on the LWS page 56-57-58.

Campbelltown Macarthur Advertiser, Wednesday, December 19, 2007

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, December 26, 2007

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, January 2, 2008

Campbelltown Macarthur Advertiser, Wednesday, January 9, 2008

Campbelltown Macarthur Advertiser, Wednesday, January 16, 2008

Campbelltown Macarthur Advertiser, Wednesday, January 23, 2008

Note:

No column published on this date

Drivers urged to be on the alert

30/1/08

By Dr Robert Close and Tristan Lee

AS A result of the Christmas break for columnists, some people who sighted koalas during the period were unable to find the pager number that always appears at the end of this column.

One such person sighted a koala crossing Junction Road from the Leumeah High School side and watched with her heart in her mouth as the koala narrowly missed a collision with a car and climbed a tall eucalypt beside the footpath.

She was unable to find our pager number till the following day by which time the animal had disappeared. However, we later discovered the untagged koala, again high in a tree beside Junction Road, but on the opposite side.

This means that the koala had crossed the busy road twice. It also seems likely that the animal has not yet established a permanent territory and is

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likely to remain in danger. So we ask motorists on Junction Road to be especially careful.

■ Lots of interesting koala happenings occurred over the break, of which the most intriguing was the discovery of Wendy, daughter of our aged female koala Lyn, whose death of old age at 14 we reported last year.

Wendy had been tagged at Kentlyn in August 2002 at the age of 12 months so should have been in her prime.

Instead, she was limp and skinny and we rushed her to the vet at the Wildlife Health and Conservation Centre at the University of Sydney's Veterinary School at Camden.

The vet made the unusual discovery that the koala was diabetic.

This raised the problem of what could be done for the koala. Regular injections of insulin might have kept her alive, but this was not an option for a wild koala. Putting her down was the only sensible option.

But the post-mortem showed Wendy had a hernia of the diaphragm and other internal damage, indicating that she had survived a collision with a car.

Wendy had not died in vain. By tracing her movements over her six years of life, we have shown that she established a territory quite close to her mother. Moreover, her death adds to the statistics that demonstrate the importance of cars to the lives of Campbelltown koalas.

Please report koala sightings, including any made over the Christmas break, on the UWS koala pager 9962 9966.

Visitors go wild

6/2/08

By Dr Robert Close and Tristan Lee

LAST week our koala program was inspected by representatives from two associations which raise money for conservation of native species.

One group, which included a cameraman, was from the Foundation for National Parks and Wildlife, an Australian organisation, and the other was a German group called AGA.

In addition, they were joined by National Parks and Wildlife Service research scientists who are working with us on a major publication about koalas. The visitors wished to see our research methods and the Germans, particularly, wished to see koalas in the wild.

In return we were hoping, eventually, for funding to support research.

We took them first to Ruse to see the young koala, Charlotte, who lives on private land bounded by Darling Avenue, the Georges River and Old Kent Road.

Charlotte was quite visible, so our German visitors were excited.

Next we visited Amanda who lives beside Peter Meadows Road at Leumeah. Her radio signal told us that she too was on private property, so we asked permission to find her.

The owner was pleased to oblige and told us that she'd been following Amanda's progress via this

MAC KOALA

column for years. Our visitors were impressed by the owner saying she can remember seeing Amanda from the days when her now 12 year-old daughter was a babe in arms. In fact, Amanda was first captured as an adult in September 1997.

Our visitors were even more impressed when, in a neighbouring tree, we found PM, Amanda's independent cub. This cub was eartagged during the last federal elections and his name is a play on the Prime Minister and Peter Meadows Creek where Amanda lives.

Both PM and Amanda were in excellent positions for viewing and the cameraman had a great time.

With impeccable timing the koala pager rang, thereby demonstrating our community dependent reporting system. On this occasion, however, the caller reported a koala roadkill on the Appin-Bulli Road.

So off we went, sadly, to retrieve the body of a young male koala whose travels were cruelly shortened.

All in all it had been a fascinating day, one which we hope will lead to funding for our studies.

Don't forget the UWS pager number 9962 9996 to report sightings - dead or alive.

Now here's the long

03/2/08

By Dr Robert Close and Tristan Lee

MAC KOALA

A COMMON trivia question is: "Does a koala have a tail?"

For most koalas the answer is "yes - but very tiny".

Like a human, the koala has some fused, tiny vertebrae that make a tail, so small that it can scarcely be felt.

However, we recently saw a koala with a bony tail about two to three centimetres long. The tail was clearly visible from a distance of several metres. The animal in question came from what appears to be an expanding population of koalas in the Kurrajong area.

The koala, a young female, had been taken

into care by WIRES because it had "wet bottom". That is a condition in which the fur surrounding the koala's urogenital opening is wet and discoloured. This is usually a symptom of the bacterial disease chlamydia, which is quite common in some areas.

Tests taken from the young female, however, proved negative. In every other way she seemed quite healthy. Although she seemed to have some difficulty settling into a comfortable position in tree forks.

It was suggested that the tail was pressing on her bladder releasing small amounts of

and the short of it

urine. This urine was then dampening and discolouring the fur.

The presence of a small tail is an example of genetic variation in the population. We have found other examples in the Campbelltown population such as nostril pigmentation.

Most people would be aware that the nose pad of koalas is black, but few would realise that the nostrils themselves often have small patches of pink skin.

These patterns are sometimes so distinctive that we can identify individuals from them. Another variation is in the degree of darkness of the skin of the feet. In some animals the skin is brown rather than black.

Having high levels of genetic variation in a

population is generally considered to be valuable because it indicates that at least some animals in the group will be equipped to survive whatever challenges that the environment can confront them with.

Returning to our tale of the tail, humans also are very occasionally born with a small tail, which can either have a bony or a soft core.

These appendages are usually removed surgically at birth, so, unlike the koala, affected humans are not disadvantaged when they sit.

Please report sightings of koalas on the UWS koala pager 9962 9996.

Drawn to suburbs

By Dr Robert Close and Tristan Lee

20/2/08

MAC KOALA

A CALLER rang to tell us that a koala with a radio-collar was regularly walking up and down her street in St Helens Park.

The koala proved to be Courtney who has lived in Spring Creek, St Helens Park, since at least September 2003 when we ear-tagged and radio-collared her. Since then she has lived happily beside Spring Creek, but on two occasions has headed off into the suburbs.

Once she crossed Woodlands Road and headed into Bradbury and on the other occasion she wandered west into St Helens Park. On both occasions, we worried that dogs or cars were too great a danger, so we captured her and released her back into her usual haunts.

However, we only track her every two weeks, so it is entirely possible that she could make a foray into the suburbs and return without us knowing anything about it. So the recent caller picked up a side to her behaviour that we were missing.

The latest radio collars can record a GPS reading every few hours which gives a very accurate record of an animal's daily movement.

Unfortunately, such devices are still very expensive and do not record as much information as we obtain from our personal sightings. Besides

location, we record tree species, size of tree, location in the tree, condition of the tree, health of the animal and presence and age of any cubs.

We would like to know why Courtney makes these excursions into the suburbs.

It's not for lack of males, as Barney and Cramar are seen regularly in trees beside Ironside Drive looking down over Spring Creek. Last week they shared the same tree. A day before and a day later Cramar was spotted in the same spot in the same tree about 200 metres further along Ironside Drive.

So what the boys are up to we're not quite sure. Perhaps Courtney feels she is too closely related to Barney and is looking for an unrelated male.

Tristan's DNA studies should tell us how closely Courtney is related to local males. However, we are desperate to find funding to cover the costs of the expensive materials required for DNA testing and are applying to a number of sources.

Any donations to the Keith Longhurst Memorial Fund for Koala Studies at UWS would be most welcome.

Please report sightings of koalas on the UWS koala pager, 9962 9996.

Cramar sad after a blue in the tree

27/2/08

By Dr Robert Close and Tristan Lee

LAST week we mentioned that two male koalas, Cramar and Barney, seemed to be having a bit of a barney beside Ironside Drive and Spring Creek in St Helens Park.

Soon after that, Robert, a resident of Ironside Drive, rang to say that he thought Cramar had come off second best and was nursing a few wounds. Sure enough, when we inspected him as he sat sadly in his tree, he had a torn ear, a scratched nose and a badly swollen hind leg.

When male koalas battle for supremacy, the biggest and strongest tries to push the other out on to flimsy branches forcing it to jump to safety or fall.

This is what appeared to have befallen Cramar.

Although we were worried about Cramar's leg, he was still able to climb, and we decided not to add to his stress by trying to capture him.

We know that koalas can survive injuries provided they can find some peace and quiet. Barney, however, was not prepared to give him any rest. The following day, Robert rang again to say that Barney was in the same tree in which Cramar had been recuperating.

Of Cramar there was no sign. We expect that Barney may drive Cramar out of the Spring Creek bush and onto Woodlands or Appin Roads. We ask motorists to be alert.

■ Meanwhile, at Ruse, Amanda and her large cub,

MAC KOALA

'When male koalas battle for supremacy, the biggest and strongest tries to push the other out on to flimsy branches forcing it to jump to safety or fall'

PM, also had a caller in the form of a big, grey, untagged male. All three were in different trees, and although the male was quite high, we thought it was worth trying to catch him.

We don't have many tagged males in Ruse and we need more for Tristan's DNA studies.

Kieran, our climber, was soon on a rope above the male and flagging him down from above.

The koala responded to the flag by galloping down the tree and into our waiting arms.

He weighed 9.6kg and the wear on his teeth indicated that he was 4-5 years old; big but not yet fully grown. He was soon eartagged and released, but not before his spotter, Kyla Hendrie, had named him "Hendo".

No doubt we'll see more of Hendo over the next few years.

If you see Hendo or any other koala, call the UWS koala pager 9962 9996.

As quiet as mice

5/3/08

By Dr Robert Cose and Tristan Lee

MAC KOALA

FOR the first time in more than 10 years we don't have stories of the activities of Campbelltown koalas to report; the pager has remained silent all week.

So it's a good time to summarise what we know about our colony.

Firstly, what is the size of the population?

We can roughly calculate an answer by estimating the area of known breeding habitat and multiplying that by the density of koalas.

We can estimate the known breeding area from a map showing the sightings of female koalas which cover west of the Georges River/O'Halloran Creek from Long Point, Macquarie Fields, to Appin.

Roughly calculating the area of suitable koala habitat between these two sites we get about 40 square kilometres, or 4000 hectares.

Our studies have shown that a female territory occupies about 30 hectares and, in Ruse and Kendyn at least, the females have subdivided the land into the adjoining territories.

Consequently, if all the available habitat is occupied then there is a potential population of 130 female koalas.

Considering that all our radio-tagged females are dying of old age at 14-15 years and producing a surviving cub almost every year from the age of ten to 15 years, there will be 50 female cubs

seeking their own territories every year, while only 10 adults will be dying.

We know that our female cubs tend to settle within a few kilometres of their mothers, so the remaining vacant breeding areas will soon be occupied.

The young males, on the other hand, tend to disperse, and our tagged animals have been found as far afield as Douglas Park in the south and Alford's Point in the north-east.

These calculations do not include potential habitat on the eastern side of the Georges River in the Blaxworthy Army Range.

We have not studied this area closely, but know that koalas occur there, possibly at much lower densities because the soils tend to be less fertile than they are west of the river.

However, even if the densities are as low as one female per 500 hectares, then there are potentially 200 koalas living on the range and Worondra catchment to spread the risk of local extinction from widespread fire, disease, drought and deforestation. Consequently, our koalas should survive for many generations.

Report any sightings on the UWS koala pager 9962 9906.

Join pellet hunt to help research

By Dr Robert Close and Tristan Lee

PUPILS at Kentlyn Primary School are quick to recognise the olive-pip-shaped faecal pellets dropped by the koalas that regularly visit the school.

Once the pellets are sighted the pupils scan the many trees in the school grounds for the outline of a grey ear or a shadowy blob in the foliage that will reveal the koala itself. The children then peer up to see whether the animal has coloured ear tags which will identify it.

The school is an important site for us as radio-collared koalas have visited the grounds since 1996, when Lyn was first captured there.

Lyn, along with Shirley (1993), who lived a kilometre away beside Georges River Road and Darling Avenue, were among the first koalas that we'd radio-collared and they have combined to produce many cubs that have settled in the area.

Unfortunately, we've had sufficient resources to put a radio-collar on only one, Shirley's daughter June (2001), who moved along the road and settled in near the school.

Thereafter, Lyn no longer visited the school, but she has left at least two female cubs, Georgie (1999) and Wendy (2002) in the area. June has produced a string of female cubs: Shy (2003), Vicki (2004), Mishka (2005) and Alice (2007) which may have also settled down near the school.

12/3/08

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Knowing how females establish their home ranges is important for understanding how our Campbelltown koalas will survive in the long term.

Will they shove each other into smaller and smaller areas until there is insufficient resources to allow successful breeding? Or will the older and weaker females be chased away into less fertile areas?

A Canadian science student, Lee Deckebaum, who is studying for a semester at UWS, is required to conduct a short research program, so we have given her the task of sorting out the whereabouts of the ear-tagged female koalas living in the vicinity of Kentlyn Primary School.

All our research has depended on the community to locate koalas for us; this project is no different.

To be successful, Lee is asking for the help of the school's pupils and also the local residents from nearby streets including those in the adjacent Russian Orthodox retirement village.

We would like all helpers to use the children's technique of searching first for pellets and then for the koala in the trees.

If successful, they should check for ear tag colours then call us on the UWS koala pager, 0202 9999.

Lots of fur flew in treetop tussle

19/3/08

By Dr Robert Close and Tristan Lee

TWO weeks ago, we reported a battle in Spring Creek, St Helens Park between two koalas, Barney and Cramar.

One of them was injured and we predicted that he would be chased by the victor out of the bushland into the different dangers of the suburbs.

We were not surprised, then, when we received a call to report an injured koala crossing Wedderburn Road on the Campbelltown side of the top of Wedderburn Gorge - only 400 metres from the battle.

The sighting was made at 11am on a hot morning, a strange event in itself because koalas usually rest up during the day.

We found the animal in thick undergrowth at the base of a tree, only a metre from the edge of the road. Again, it's unusual for a koala to rest at the base of the tree. This behaviour normally indicates a serious health problem.

On our approach, he climbed only two metres before he had to rest in a small fork and we could clearly see the orange tags in each ear that identified him as Barney.

This was unexpected, because we had expected the younger koala, Cramar, to be the loser of the battle. Either we mistook our animals during the fight or both were injured.

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He was clearly in distress, so we took him to the avian, reptile and exotic pet hospital at the Wildlife, Health and Conservation Centre of the University of Sydney at Camden where Associate Professor David Phalen treated him for dehydration and infection of a small but nasty wound on his rump.

A full inspection with X-rays of the wound would be held on the following day.

Meanwhile the patient was shown into his spacious room, complete with tree forks and freshly cut gum leaves, where he relaxed and immediately started to feed.

We'll publish a progress report next week.

Ironically, the tree below which we found Barney played a role in a curious incident in the history of our koala studies.

Several years ago after a major local fire, a prankster had climbed the tree and wedged a large stuffed wombat into an upper fork then waited for the fun.

We were notified and Robert actually climbed the tree and touched the impostor before he realised it wasn't a burned koala and that he'd been had!

Please report genuine koala sightings on the UWS koala pager 9962 9996.

Barney's in strife, Gorilla's fighting fit

By **Dr Robert Close** and **Tristan Lee**

LAST week we left Barney settling into his room at the Wildlife Health and Conservation Centre at Camden after being injured in a fight with Cramar.

Unfortunately, the vets discovered that Barney had low levels of white blood cells and no detectable levels of glucose in his blood.

They believe he has septicaemia from a bite to the rump from Cramar and that is affecting many of his body processes.

In short, his future looks grim and shows yet again that nature can be very cruel.

There was better news, however, from another of the male koalas, the quaintly named Gorilla. He had been originally discovered in October last year in an Army property at Moorebank. In such cases we ignore our usual rule of releasing koalas in the nearest safe area of bushland and instead we released him in known habitat at Ruse, near the Georges River.

Two weeks ago, Gorilla was spotted near Peter Meadows Road, a distance of 4 kilometres from his release site. He appeared to be in good condition and we hope the community will call in to report his progress.

We are now developing an extensive map of movements of male and female koalas around the district.

■ In answer to our request for koala sightings in the vicinity of Kentlyn Primary School, we also received a call to say that pupils had located a koala in the grounds.

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'They believe [the koala] has septicaemia from a bite to the rump... In short, his future looks grim and shows yet again that nature can be very cruel.'

This animal turned out to be Vicki, daughter of June and great-granddaughter of Shirley. She is exactly the animal we wanted in our study of how female koalas establish their territories.

Interestingly, June was only 300 metres away in the adjacent retirement village. We soon had a rope up in the tree and Kieren climbed up above Vicki so he could flag her down.

She climbed down rapidly and was soon in the bag, though not before delivering a healthy bite to one of her captors. Fortunately, she could not penetrate our heavy gloves.

Vicki was very healthy and had a two-months old male cub in the pouch.

We soon had her fitted with a radio-collar and returned her to her tree. She will now give us regular information about her movements and relationship with her radio-collared mother.

There are still other females in the vicinity of the school so we remind people to report sightings on the UWS koala pager, 9962 9996.

What'll they do when the wattle changes?

By Dr Robert Close and Tristan Lee

2/4/08

MAC KOALA

TWO Canadian journalists from the *Vancouver Star* visited us recently to gather information about the possible effects of climate change on Australian mammals.

We took them out to Ruse, where most of our radio-collared koalas are living, and explained to them that finding koalas without the aid of the radio transmitters was difficult and that they could expect, on average, to find one koala for every five days of searching, unless they were quite experienced.

No sooner had we said that, of course, than one of the Canadians pointed up to a nearby tree and asked: "What's that?"

To their joy, a large, untagged male koala was perched in a fork about 10 metres above us.

We then turned the radio receiver on and the signal indicated that the recently captured Vicki was nearby. We had found her about 200 metres away in a wattle tree close to Georges River Road in the grounds of Kentlyn Primary School.

The Canadians were delighted and took photos.

To cap the day, a car pulled up beside us and the driver, a burly bloke in a blue singlet, asked us whether we were studying the local koalas. He told that he too was interested in researching a marsupial and then pulled out two folders of carefully compiled files of newspaper clippings, journal articles and photographs of the thylacine (aka Tasmanian tiger or wolf) and its distinctive footprints.

One of the Canadians pointed up to a nearby tree and asked: "What's that?"

To their joy, a large, untagged male koala was perched in a fork about 10 metres above us.

The Canadians' eyes almost popped at this information, particularly when the man showed them a report of a thylacine sighting just around the corner in Smith Street about 10 years ago by a woman on horseback.

The Canadians wanted to do a story on this phenomenon, but the man preferred not to be photographed.

He said he suspected that thylacines had been brought to the mainland by private breeders before their numbers dwindled in Tasmania before 1930 and that the current reports arose from releases of those animals.

We wished him well with his hunt and returned to the question of climate change.

We told the Canadians that if summers grew hotter and drier, then bushfires would be more dangerous and the distribution of eucalypt species could change. Both effects could be very serious for koalas.

Report koala sightings on the 1800 koala page 9962 9996

Genealogists hear of furry family history

By Robert Close and Tristan Lee

MAC KOALA

THE Family History Society's meeting at the Campbelltown Library last Saturday, Robert talked about one of the city's more unusual families: the four generations of koalas of which some was the matriarch.

Over the past 15 years, this family has provided a wealth of information so necessary for the successful management of the Campbelltown population.

Members of the society asked many thoughtful questions about the research.

In particular, they wanted Tristan to address the society when his DNA studies are complete and he can tell them about the fathers in Shirley's family: are they related to the koalas? Do they come from a distant area? How many fathers are there?

Our study of koalas is unique in that we have been able to follow the family for such a long term.

These research projects depend on obtaining funding, which is normally provided for three years at a time.

It is most unusual for studies to last more than two three-year cycles.

We have been able to continue for so long because most of the field work and data entry has been conducted by very generous volunteers.

Likewise, apart from the first few years when we obtained funding from UWS and the Australian Koala Foundation and the *Macarthur Advertiser*, our very modest expenses have largely relied on community donations.

Apart from the first few years when we obtained funding from UWS and the Australian Koala Foundation and the *Macarthur Advertiser*, our very modest expenses have largely relied on community donations.

Although the community has strongly supported our studies, there have been occasional negative comments.

Some people have objected to our trapping and tagging of animals.

However, unless we can identify individual koalas, what we can learn is very limited.

Moreover, survival of collared koalas has long demonstrated that any effect of capture is very minor.

Other negative comments have occasionally come from land-owners, apparently afraid that the sighting of koalas on their property will reduce their financial returns.

However, it is not uncommon for property owners to advertise koala occupancy as a positive attribute of the land.

We certainly would like to have native koalas living around our homes.

Report koala sightings on the UWS koala page 9962 9996.

Martine first found in 1998

By Dr Robert Close and Tristan Le

LAST week we took the radio-collar off one of our study koalas, Martine, and released her back into her territory overlooking Wedderburn Gorge.

It was the first time in four years she'd been without a collar.

This was the first time in our long study that we have not replaced the radio-collar on one of our study females.

However, we felt Martine had given us as much information as she could.

That is, we know the area of her territory, what trees she likes and how successful a breeder she is.

Although it would have been useful to follow her life until she eventually died, we decided that the returns were not worth the considerable effort required to track her and recapture her every year to replace the collar.

We first captured her in October 1998, when a motorcyclist found Martine as an 18-month-old running up Wedderburn Road.

We ear-tagged and released her nearby.

A year later we received a call to say she was running up the same segment of road.

In October 2000, she was reported several times crossing the road just north of the Causeway with a cub on her back.

She was seen again in September 2002 and July 2003, each time with a new cub.

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'We first captured her in October 1998 when a motorcyclist found her as an 18-month-old running up Wedderburn Road'

We finally captured her and fitted a radio-collar in January 2004 and ear-tagged her cub, Louise. Since then, we have noticed that whereas she used to cross the causeway and browse in the trees by the road on the southern side of the river she now stays permanently on the Campbelltown side.

We suspect another koala has claimed the southern side.

Martine will look down at the construction of a causeway in Wedderburn Gorge.

Currently tenders are being called for the work, which will disturb the approaches on either side of the river. It would have been interesting to track Martine during construction to record her response. However, construction won't begin for some time.

Meantime, we depend on community sightings to record Martine's final few years.

We ask motorists to check carefully for ear tag colours if they see a koala in the Gorge and notify us on the UWS koala pager, 9962 9962.

O'Hares Creek full of surprises

23/4/08

THE watchers moved quietly into their observation sites in the evening and again the next morning, hoping to spot a small, dark shape or a small splash and a ripple caused by a platypus.

The watchers were part of a campaign run by the Macarthur branch of the National Parks Association, with the assistance of Tom Grant, a well-known platypus researcher.

Their focus was the O'Hares Creek, which is the major tributary of the Georges River, supplying 70 per cent of water flows.

Moreover, O'Hares Creek rises in almost pristine conditions, which have been protected since European settlement. Continuous, unpolluted flows are supplied by hanging swamps which line the water catchment and act like giant sponges slowly releasing water during the year.

The same stalwart group of watchers had previously undertaken their vigils in the

PLATYPUS STUDY

Campbelltown to Appin regions of the river, but with no success.

Their motivation had been occasional sightings of platypuses reported by community members and the several areas of apparently suitable habitat, provided by the river and its banks.

Undeterred, Dr Grant and the NPA were keen to investigate the unpolluted O'Hares Creek Catchment.

They found apparently suitable sites where there was at least a metre of bank above the water-line.

Such a bank is required for digging the tunnel and nesting chamber.

A fringing cover of vegetation on the bank is also required to allow the platypus to enter and leave its burrow without being seen.

Then there has to be suitable food supplies in the form of small crustaceans (shrimp-like animals) and

insect larvae, such as dragon flies, damsel flies, midges and other invertebrate animals.

Unfortunately, the platypuses again remained elusive.

However, the watchers were excited to find a water rat, an important discovery.

These native animals are fascinating, being five times as big as the common, introduced rat.

Their adaptations to an aquatic habitat are also impressive with partly webbed hind feet, and nostrils and ears that they close to keep out the water.

The insulation properties of their fur are also impressive (though not as good as a platypus) and they locate their food underwater with the aid of their long whiskers.

It's great to learn that such unique, but surprisingly little-studied, animals are surviving in the region.

■ Report sightings of platypuses, water rats and koalas on the UWS website page 9362 9996.

All-night creek vigil

30/4/08

By Dr Robert Close and Tristan Lee

MAC KOALA

IT'S not just koalas that interest us.

Since reporting last week on the National Parks Association search for platypuses in the Georges River tributaries of O'Hares Creek and its offshoots, we've discussed the survey with Dr Tom Grant who led the search.

Tom set up nets in the pools that he considered looked like suitable habitat and was most disappointed that no platypuses were found. The nets are set up like a curtain running along the length of the pool, with floats and a tethering rope on one side of the net.

The other side of the net floats free unlike a

fish net, which would be weighted. When a platypus encounters the net it gets entangled but floats to the surface because the net is not weighted.

Tom then maintains a regular vigil along the nets during the night to remove the platypus as soon as possible after it gets caught, in case the floating side of the net snags on rocks or timber, or traps a fish such as a large carp which might prevent the entangled platypus from reaching the surface.

Tom was not totally convinced that the

for platypuses

sighting of a water rat that we reported last week from the survey was valid. Apparently the sighting was only for a second or two and the spotter reported seeing a flash of white that could have been the white tip of the tail which is diagnostic for water rats.

So the record won't be official but we'll hope that the report will encourage bushwalkers to keep a watch out for these marvellous animals.

Their distinctive tracks were reported beside the Nepean River near Camden in the 1970s and they are still common in the Wollondilly River, as are platypuses.

Tom finds that the platypus story on the

southern edge of Sydney is a real mystery.

He says their rarity is not likely to be the result of water pollution because "these little guys are found in some of the most degraded streams in eastern Australia".

He thinks there may be "something special", like the platypuses from south-east Sydney.

He said: "Anyone who can show me a platypus in either the lower Nepean River or any part of the Georges River would be forever in my debt - a holy grail indeed."

Readers can help by reporting sightings of platypuses, water rats and koalas on the University of Western Sydney pager, 9962 9996.

Barney in the fight of his life

7/5/08

By Dr Robert Close and Tristan Lee

WE reported a battle between Barney and Cramar in Spring Creek, St Helens Park, early in March.

At the time we suspected that Cramar, the younger animal, had come off second best.

But two weeks later we discovered Barney at the base of a tree with a small but deep wound on his hip.

We took him to the University of Sydney's Wildlife Health and Conservation Centre at Camden where the vets removed pieces of dead tissue and bone from the wound.

Unfortunately, antibiotics failed to heal the wound and analysis revealed that Barney was infected with a bacterium that was resistant to most antibiotics. He was then switched to a second antibiotic and his wound began to heal. Despite that improvement, Barney lost condition, stopped eating and became so weak he had to be destroyed.

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The vets were aware that Barney was an unusual case because he was always aggressive and would grab various parts of his body as if he were in pain.

A post-mortem examination showed that Barney had a severe and chronic bacterial infection of his gall bladder which would explain his discomfort and failure to recover.

As Professor David Phalen from the centre explained: "People with gall bladder disease typically are nauseous, do not want to eat, and experience abdominal pain.

"People, unlike koalas, however, can tell their doctor where it hurts."

David discussed Barney's case with Dr Paul Canfield, of the University of Sydney, who has performed necropsies on 1200 koalas and only seen two similar cases.

Moreover, the principal bacterium cultured

from the gall bladder has only been isolated from the lungs of koalas and may have entered Barney's gall bladder from the digestive tract or via the bite wound.

It is possible that Barney was already sick with this gall bladder infection before his fight with Cramar.

Whatever the case, Cramar was back in his favourite tree last week overlooking Ironside Avenue and despite a torn ear and scratched nose, definitely looked as though he was grinning.

The considerable cost of Barney's care over the six weeks of treatment was carried by the centre.

We are immensely fortunate to have this marvellous facility in the region.

Anyone wishing to contribute financially to the centre should leave their details on the UWS koala pager 9962 9996 and we will put you in touch with David.

Don't miss platypus talk

Dr Robert Close and Tristan Lee

17/5/08

MACKOALA

IF YOU'RE reading this column on Wednesday afternoon, May 14, and are contemplating a night in front of the TV, you must change your plans immediately and hurry off to attend a remarkable night at Campbelltown Arts Centre where you'll find Dr Tom Grant, a biologist who's devoted his life to studying the world's most unusual mammal, the platypus.

He'll speak on "The platypus: how much do we really know and is what we don't know important?"

The talk is the first of four Macarthur Heritage Lectures sponsored jointly by Macarthur branch of the National Parks Association, the University of Western Sydney and Campbelltown Arts Centre.

Tom is an engaging speaker with a very dry sense of humour. You can depend on having a fascinating, memorable evening.

■ This time of year is quiet for koalas as the males have ceased their manoeuvring and the females generally have largish cubs in the pouch. Consequently the koala pager has been very quiet.

In fact the only call this week has been from Peter who spotted no cubs. Unfortunately Peter only left his first name and his telephone from the

pager company recorded one too few digits from his phone number. Consequently we couldn't respond. Peter, please call again.

Bush revegetation groups, however, have been busy around Campbelltown and we were pleased to see the progress made in restoring a degraded section of Shirley's old territory between Botany Place and Georges River Road at Ruse.

We also rejoined a stream-care group that meets every Saturday morning at Noorumba Reserve, Rosemeadow, after a break of a few months.

It was great to see the results of the battle against the weeds in this beautiful reserve.

■ If you're interested in restoring Sydney's bushland, consider attending a community forum "Building partnerships for the environment", run by the Sydney Metropolitan Catchment Management Authority on May 24, 9.30am to 3pm, at Forest Homebush. Morning tea and lunch provided.

Bookings essential at erindrone@cmcm.nsw.gov.au.

Please report all koala sightings on the koala pager 2512 3396.

Healthy mum and cub

By Dr Robert Close and Tristan Lee

JUNE'S radio transmitter pulse frequency was faster than normal.

This meant that its battery life would be reduced and we would run the risk of losing both her and the transmitter. When we contacted the company that made the collar, however, they were surprised.

The collar has a mortality switch that changes the pulse frequency to a slower rate if the animal has not moved for a couple of days, but they could not envisage how the rate could increase.

Their advice was to send the collar to them and they would check it.

Finding June in a tree that is suitable for a catch, however, is not so easy.

June, daughter of Shirley, mother of Shy, Vicki, and Misha, and grandmother of Reg, now lives in very rugged terrain east of her former area of Kentlyn Primary School and the neighbouring retirement village, beside the Georges River.

Whether she has been forced to move by her expanding family or because a vacancy appeared in the riverside bushland, we don't know.

Whatever the case, it is now difficult to find her because the terrain is so steep and the radio signal bounces off the cliffs, gullies and vegetation.

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So when she was found low in a she-oak over the weekend we decided it was too good an opportunity to miss. An hour later, however, the catching gear and a new collar had arrived and June was nowhere to be seen.

Koalas are a lot cleverer than some people give them credit for.

We've often noticed that when they are in a small tree where they are vulnerable they will move, if possible, to a larger, safer tree.

On this occasion, however, we think that we caught her in the act of finding a safer tree. Her radio signal led us to a tiny she-oak and we could almost catch her by hand.

We soon had her in the bag and she weighed in at 9.1 kilograms, a massive weight for a koala.

She was in beautiful condition and indeed was a three-month-old cub.

So clearly the riverside bushland is doing well for her. We'll check on her again in six months and give the cub with ear tags.

Please report sightings on the UWS Koala Hotline on 9962 9996.

Some of the UWS attractions can fly

28/5/08

By Dr Robert Close and Tristan Lee

VISITORS to the UWS Campbelltown campus to see the works entered in the annual sculpture competition can see not only some fascinating art works displayed around the campus lakes but also some interesting birdlife.

When we visited last Saturday we noticed a pair of grebes (small diving birds) in each lake, a pair of black swans, three species of duck (black, wood and chestnut teal), a lone stilt, a mob of ibis, several cormorants, a white-faced heron, martins, swallows, red-rumped parrots, swamp-hens, moor hens and coots as well as the more common birds such as magpies, noisy miners and willy wagtails.

One of the entrants for the sculpture competition was a large wooden goanna.

This is apt because the campus supports its own resident goannas which appear from time to time.

In fact the Cumberland Plain vegetation on campus holds some interesting species including wallaroos (hill kangaroos), swamp wallabies, echidnas and several species of snakes.

The lakes themselves contain many aquatic creatures which are studied by all first-year biology students at the campus.

Unlike most other dams and streams near Sydney, the lakes do not contain the damaging mosquito fish.

MAC KOALA

These fish were introduced to reduce mosquitoes but failed to do so. Instead, they affected local fish numbers. In their absence the lakes support a thriving population of the native fish species the fire-tailed gudgeon. These in turn feed turtles and eels.

■ At the recent heritage lecture given by Tom Grant about what we don't know about platypuses, our koala research unit was presented with a cheque for \$2100 from the Macarthur branch of the National Parks Association. This generous donation will be used to replace some of our ageing radio telemetry gear. Our two radio receivers have been in continuous use since 1993 and they are now very shaky and temperamental.

Interestingly, our first foray into radio-tracking local koalas was also supported by the NPA and another local group GREAT, or Georges River Environmental Action Team.

Any donations can be made to the tax-deductible Keith Longhurst Koala Research Fund. The address is: Attention Robert Close, UWS Campbelltown, Locked Bag 1797, Penrith South DC 1797. This fund is managed by the UWS Foundation which provides the documentation for tax deductibility.

Please report sightings on the UWS koala pager, 9962 9996.

Rampaging males

By Dr Robert Close and Tristan Lee 4/6/08

MAC KOALA

CRAMAR has had no peace in which to recover from his wounds after defeating Barney during the Battle for Spring Creek.

Sounds of two male koalas bellowing to each other close to Ironside Avenue in St Helens Park indicated the arrival of a new male on the scene.

As yet we haven't seen the interloper, so we don't yet know whether he's been tagged. Normally we expect the males to start their territorial campaigns in July, so perhaps the unusual weather has speeded up the process.

If so, residents near Campbelltown bush may hear the distinctive bellowing, which sounds like a grunting pig playing with a chainsaw.

The biggest gap in our knowledge of koala behaviour is how male koalas operate.

Tristan is on the brink of solving some of the questions from his analysis of about 100 DNA samples. He was also successful in obtaining funds to buy some satellite collars to solve the problems we had in radio-tracking males and we'll devote a later column to describing how we hope they will work. Two other male koalas ended up on the dissection table last week. First year biology students, normally dissect rats to learn about organ systems and anatomy.

At UWS Campbelltown, however, students

conduct post-mortems on koalas that have died for various reasons.

One came from Cooma and was a large male with little food in his stomach or intestines, a hugely enlarged spleen and much clear fluid in his peritoneum.

He'd clearly been in great discomfort for some time. What particularly caught our attention, however, was the considerable amount of fat that the animal carried around his organs and in the mesenteries of the intestines.

All the text books say that koalas carry very little fat because of the need to reduce weight to a minimum so as to reduce energy usage while climbing. Certainly we have never encountered a fat koala before.

Perhaps the harsh Cooma climate requires a big store of energy to survive the winter.

The other koala was found in a paddock at Bilpin. He was old, with rotten lower incisors, worn molars, a cyst in his small intestine, tumour-like growths beneath both kidneys and infected lymph glands.

Clearly time had run out for this old boy.

Please report sightings on the UWS koala pager, 9962 9996.

GPS collars make

By Dr Robert Close and Tristan Lee

MAC KOALA

WE mentioned last week that we had obtained funding for global positioning system (GPS) collars to use in our local koala tracking.

These GPS collars record the koala's location (by communicating with GPS satellites) at regular intervals, say every three hours.

The location is stored on the collar until we download it into our computers.

Each collar also has a subsidiary transmitter which we can locate with our hand-held receiver. This allows us to locate the animal finally to download the GPS data.

The key advantage of GPS collars is that they can

record locations regularly without our having to actually find the animal.

Until now, we have had to track our radio-collared koalas every fortnight, find the tree they were in, then manually record their location, using our own hand-held GPS system. Consequently we have no idea how far a koala is moving during a single night or how many trees it is using.

Moreover, some males were difficult to track because they would move so far in a fortnight that they were often very difficult to locate.

With the new GPS collars we will need to find

tracking easy

11/6/08

each koala only twice: first to put on the GPS collar, and then a few months later to download the data.

So not only will the collars provide frequent information, but they will also eliminate the need for time-consuming radio tracking, often in difficult terrain.

Of course, radio tracking is often fun, and we also obtain additional information such as the tree species chosen and the condition of the animal.

The major problem is that if the GPS-collared koala moves a long distance, we may not be able to find it and its very expensive satellite collar.

The subsidiary transmitter has a range of only 1-3km (depending on vegetation and terrain), so we will still have to check it regularly.

However, we'll only need to obtain a rough location and so will probably achieve that without having to venture into the bush.

In other news, we are starting to obtain results from our DNA genetics studies and hope to soon understand the interactions between individual koalas in the Campbelltown population, and between this population and others further south and north.

Please report sightings on the UWS koala pager, 9962 9996.

Any other information please email: campbelltown.koalas@gmail.com

The personal touch

By Dr Robert Clese and Tristan Lee

18/6/08

MAC KOALA

IN LAST week's column we suggested that our old method of radio-tracking koalas had some advantages over the new method of using a satellite system to automatically record locations every few hours.

One such advantage is that by personally locating each koala we can feel much more involved with it and its surroundings.

For example, while Lynn was tracking Courtney in the Spring Creek bushland at St Helens Park, she saw in a nearby tree a powerful owl with a dead ring-tailed possum in its talons.

The powerful owl is a huge bird with orange eyes and is currently rated as "vulnerable" in NSW.

Perching 60cm high and with a wingspan of 140cm, it is Australia's largest owl.

Winter is the breeding season for this marvellous bird so residents of St Helens Park should pause on still evenings to listen for its "whooh-whooh".

We've mentioned this owl in a previous column but it's worth repeating that it depends on large tree hollows (at least 50 centimetres deep) for nesting, in large eucalypts that are at least 150 years old.

Such trees are not common and must be protected in Campbelltown if we are to retain the privilege of having this species on our doorstep.

Courtney appeared unconcerned by the owl's

proximity and until her current cub leaves the pouch in a month's time, she is not likely to be troubled.

However, the cub will be vulnerable on exit.

Not far from Courtney and the owl, Lynn also spotted a swamp wallaby hiding among the foliage.

Although this species is quite common in our bushland, it is heard more often than seen, as is it crashes clumsily through the thick vegetation.

Despite its name, it is not often seen in swamps.

Its name arose because the first specimens were observed in swampy areas.

Overlooking all this wildlife was Cramar, who was reported last week only 10 metres from Ironside Avenue. He now appears to be fully recovered from his fight with Barney and is sporting a fine, grey coat.

Unfortunately some of the other favourite roosting trees beside Ironside Avenue near Litchfield Place are dying.

This could be associated with the storm water run-off at that point, perhaps bringing too many nutrients into the area.

Please report koala sightings on the UWS koala pager 9962 9996 and any other information to campbelltown.koalas@gmail.com.au.

Difficult to find a female who breeds

25/6/08

By **Dr Robert Close** and **Tristan Lee**

HILLTOP residents are up in arms over firing ranges planned for bushland not far from the village and adjacent to an existing range.

Those proposing a development must study environmental impacts and professional consultants should be unbiased.

However, opponents of such proposals sometimes use their own consultants in the hope that weaknesses in the original study can be revealed.

After all, surveys are often limited by time and some species of animals can be difficult to find.

Koalas are difficult to locate, and if the koalas at Hilltop are as thinly spread as they are around Campbelltown, there may be only one breeding female per 30-40 hectares.

That's the equivalent of only three animals in an area of bushland one kilometre long and one kilometre wide.

Given the nature of koalas, it is not surprising that none have been sighted on the site.

A technique to locate koalas in such locations is, on still nights, to play the recorded sound of a female koala bellowing and hope a male koala will respond.

Accordingly, a consultant employed by Hilltop

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residents set up his recorder one night recently and soon the sound of a koala bellowing was echoing through the forest.

To the consultant's joy, there was a bellow from the other end of the site.

Unfortunately, at that end of the site, a consultant engaged by the firing range was having the same experience.

We have inspected the site, which appears to be suitable habitat.

We have also found the distinctive faecal pellets at the base of trees on the site and are convinced that koalas use the area.

However, a trigger for state legislation which seeks to protect koalas, and which would require the developer to prepare a koala plan of management, is evidence of breeding female koalas. Although the variation in size of the faecal pellets would indicate a range of sizes of the koalas on the site, that evidence is not sufficient. A female with young must be found.

Please report koala sightings on the UWS koala pager 9962 9996 and any other information to campbelltown.koalas@gmail.com.au.

New cat breed a threat to native animals

2-7-08

By Dr Robert Close and Tristan Lee

PLEASE consider the proposed introduction of Savannah cats to Australia.

These animals, produced by cross-breeding domestic cats with Serval cats from Africa, weigh twice as much as domestic cats and are extremely agile; see <http://www.abc.net.au/news/video/2008/06/22/2281933.htm>.

The biggest step in the cross-breeding process was the first cross between the pure Serval (Felis serval) with one of the larger breeds of domestic cat (Felis catus).

First cross hybrids, particularly males, were not very fertile, so the first female hybrids that produced kittens, sired by domestic cats, would

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have been vital. Each succeeding generation was then backcrossed to a male domestic cat, but the breeders would select for breeding those animals that most resembled the Serval. The resulting Savannah cat is now fifth generation comprising 97 per cent domestic cat genes.

Remaining serval genes, however, are potent ones for size, coat colour, body, ear and head shape. These are the genes that would enter the gene pool of Australian feral domestic cats.

No doubt importers will only sell de-sexed animals, but fertile animals will eventually escape and breed with feral cats.

The impact that these serval genes will have on our ecosystem is of course unknown. However, 8-10kg cats that can make vertical leaps of two metres would easily take 1.5kg koala cubs.

A draft environmental assessment of the proposed importation is now available for comment before July 18. See DEWHA report: <http://www.environment.gov.au/biodiversity/trade-use/infocomment/savannah-cat.html>.

Unless a significant proportion of Australians show that they don't want Savannah cats in Australia, then they will arrive.

So the best move is to write to Environment Minister Peter Garrett (<http://www.petergarrett.com.au/8.aspx>).

Less effective but still advisable is to fill out the

on-line petition: <http://www.gopetition.com.au/petitions/savannah-cats.html>.

Formal submissions go to Director, Exotic Species Regulation Section, Wildlife Branch Department of the Environment, Water, Heritage and the Arts, GPO Box 787, Canberra ACT 2601.

On a more mundane note, our last column stated that researchers play tapped bellows from female koalas to elicit responding bellows from males. Although females have several calls, they don't bellow. Tapped calls, therefore, are always male bellows to which resident males respond.

Please report koala sightings on the UWS koala pager 9862 9996 and any other information to campbelltown.koalas@gmail.com.au.

Campbelltown Macarthur Advertiser, Wednesday, July 2, 2008

9/7/08

Colony on the move much earlier than usual

By Dr Robert Close and Tristan Lee

THE 2008 koala season kicked off early this year with several sightings along Peter Meadows Creek, the most densely occupied area for koalas near Campbelltown.

First there were sightings of untagged, large males near the ends of Waratah and Coral roads and also near the junction of Old Kent Road and Darling Avenue.

Because they were untagged we don't know whether each sighting was of the same or different animals. Then Taylor was seen, with a cub in her pouch, near the end of Hereford Road. Taylor was originally tagged at Minto Heights in 2001 but she moved three kilometres up the Peter Meadows Creek before settling.

Next door to her, Leslie was observed overlooking Peter Meadows Road beside the creek.

Like Taylor she also had a cub on board. Leslie is one of Shirley's daughters and she moved three kilometres down the creek-line from Shirley's area at the junction of Darling Avenue and Georges Road to establish her home range. Leslie was tagged in 1998 so is now over 10 years old.

Then PM, Amanda's recently weaned cub from 2007, was observed near the junction of Peter Meadows Road and Junction Road. He's likely to be wandering about so we ask drivers to be especially vigilant on Peter Meadows Road. Lastly, Charlotte was observed beside Darling Avenue. She was the only radio-collared animal to be sighted by the community, so the value of the eartags is obvious. Besides koalas, we sometimes receive reports of echidnas in the Peter Meadows Creek area.

'Besides koalas, we sometimes receive reports of echidnas in the Peter Meadows Creek area.'

In fact we have had several reports of echidnas from across the district including the UWS campus and roadkills on Appin Road.

Like the less common platypuses, echidnas are a unique form of mammal, the monotreme, which claim, because of their uniqueness, a stronger right to be protected than the two other groups of mammals, marsupials and eutherian mammals.

Both of these groups contains hundreds of species whereas the monotremes have only three.

■ Come to the Campbelltown Art Centre at 7.30pm on Wednesday, July 16 to the second in the Heritage lecture series run jointly by Macarthur National Parks Association, the University of NSW and the Art Centre to hear Dr Mike Augee talk about echidnas.

He's studied them for many years and is an entertaining speaker with a great sense of humour. It will be fascinating.

Critter ventures out of the bush

July 16 2008

By Dr Robert Close and Tristan Lee

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OF 2448 records of koala sightings on our database, about 2000 have been reported on the UWS koala pager.

Some calls have been from regulars who live near or walk along the edge of Campbelltown bush.

Ray Whitmore often spots koalas in the Ruse bushland.

However, Ray had the tables turned on him last Friday when he found us looking at a koala high in a tree on his nature strip.

The koala was Charlotte, one of four females that we are radio-tracking in Ruse. We had been led by her radio signal.

There she was, 150 metres from the bush, looking down on unsuspecting people.

She was camouflaged and difficult to discern, but a clue to her presence was many distinctive faecal pellets she had scattered over Ray's trim nature strip.

Some had a slight fungal growth on them indicating that Charlotte may have also been in the tree the previous day. Koalas produce pellets that look like chubby olive pips.

They are a sure sign of koala presence.

What was Charlotte doing in a suburban street besides checking up on Ray? The ans-

wer came the next day when we tracked her to a tree outside the Catholic church in Acacia Street.

Clearly she had been swept up in World Youth Day excitement and wanted to be part of it.

She didn't stay for the Sunday service, however, and retreated up Acacia Street to the edge of the bush.

For the past three years Charlotte has lived in the triangular area surrounded by Darling Avenue, Old Kent Road and the Georges River Road.

As far as we know she has never ventured far from that area before.

But we only radio-track her once every two weeks, so it's possible she makes occasional forays into suburbia which we don't detect.

Courtney at St Helens Park also makes occasional ventures out of the bush.

Maybe they're looking for males or just exploring.

Inspect nature strips and report sightings on 9962 9996 and other information to campbelltown.koalas@gmail.com.au.

Church watcher named Benedict

23/7/08

By Dr Robert Crosse and Tristan Lee

LAST week we reported the unusual foray of radio-collared koala Charlotte into the grounds of St Thomas More Catholic Church at Acacia Avenue, Ruse.

We suggested that she was either chasing a male koala or taking part in the World Youth Day celebrations under way at the church.

However, on the Saturday night she retreated back up Acacia Avenue to her usual haunts. On the following Monday, Ray Whitmore rang to report a different, untagged koala drinking from a puddle outside the church. Then at 8.30am, Wendy Pairs rang to

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say that a male koala had climbed into the grounds of the Crescent Childcare Centre in Darling Avenue, just around the corner from Acacia Avenue.

We scrambled to gather the catching gear but before we arrived Wendy rang back to say that she had captured the koala with the help of staff, a doona and a large pillow-case.

The koala was a nine-kilogram male which we named "Price", the surname of Jordan and Jeremy, the original spotters. Price was soon ear-tagged, weighed and

measured, and the children at the centre watched delightedly as we released him in the adjacent bushland and he climbed high into a grey gum. But was Price the same animal that Ray had seen earlier in Acacia Avenue?

Down at the church, a huge barbecue was under way for visiting pilgrims and across the road in James Ruse Park we found another koala, untagged, looking down on the multitude from a tall redgum.

The tree was too difficult to attempt a catch, and we reluctantly had to leave him for another time. We had to wait until Friday night for the first of several calls, reporting a koala charging along Junction Road from

Acacia Avenue, scaring the daylights out of drivers and pedestrians alike. Fortunately, he took refuge in a street tree and we soon had a catching team organised.

Night catches are difficult because we have to flag the koala down towards the torches, but all went well and we soon had a young, seven-kilogram male in the bag.

We named him Benedict because of his interest in the church and released him 1.5 kilometres away beside the Georges River.

Report Benedict's pilgrimages and all koala sightings on the UWS koala hotline and other info-mation on Campbelltown Koalas@gmail.com.au.

Benedict takes to drink outside a church

30 | 7/08

By Dr Robert Close and Tristan Lee

ALERT readers of last week's column would have raised two questions.

The first: "If the name 'koala' means 'does not drink,' then why was the young koala Benedict drinking from a puddle outside St Thomas More Church?"

First, we must clear up the meaning of the name "koala." It comes from the original Aboriginal names that have been recorded as colo, kula, cullewina, koolwong, colah, koolah coola, gula and galawan.

But the evidence that the names actually mean "does not drink" is poor.

Koalas can clearly survive by obtaining their

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moisture from the leaves that they eat.

Eucalypt leaves contain from 50 per cent to 60 per cent water, so if the koala can crush all the cells in each leaf and release all the water, then it can survive. Its molar teeth are designed to cut the leaves into tiny fragments and then crush them. When conditions are hot and dry and the koala is losing water from evaporation, it has to eat more leaves to maintain its water balance.

Two problems then arise: first, the koala's intestines block up with leaf material, and second, there is excessive wear on the molars.

The three female koalas we followed through their long lives till they died of old age (Shirley, Elle and Lynn) all had much less wear on their teeth than we had expected.

So it appears that they seldom had to overeat just to obtain water.

This is evidence that Campbelltown bushland is good habitat for koalas.

So young Benedict's use of the puddle was probably to obtain water without having to expend energy eating leaves.

He was in unfamiliar surroundings with tree species that he didn't know and without his mother to provide guidance.

It's possible that he'd eaten leaves that were high in toxins or low in water content.

The second question arising from last week is: "Why was radio-collared Charlotte following young Benedict into suburbia?"

Benedict was not her son and he was not old enough to mate with. All we can think is that Benedict was being chased by a mature male and that Charlotte was attracted by the fight.

We suspect now that three males were involved - Benedict, Price (who was sheltering inside the childproof fence of a kindergarten) and a large, untagged male that was also seen in Darling Avenue last week.

Report koala sightings on the URS koala pager 9962 9996 and other contributions to Campbelltown koalas@gmail.com.au

Research tracks life and death

6/8/08

By Dr Robert Close and Tristan Lee

WE found the small, grey body beneath the "Welcome to Wollondilly" sign 400 metres east of the Georges River on the Appin-Bulli Road.

It was a young male koala whose adventures had been cut short by the road which has claimed several other young males over the years. This particular animal and another six months ago had been reported to us by a caller, Jodie, who asked us why we wanted to collect the body. This was a good question and there are several reasons.

First, we map the locations of all roadkills so that we can advise where appropriate road signs should be erected.

Second, that same map can show us dispersal routes or corridors where koalas are moving from colony to colony. As far as we know there are no koala breeding areas immediately adjacent to where the dead koala was found, so any young animal is likely to be dispersing. In fact, one of our animals, originally tagged in Kentlyn, was found dead in almost the same spot.

Third, we weigh, measure, and examine the teeth-wear of the animal to estimate its age. This allows us to verify that the animal is a young dispersing animal and not an old male evicted from the breeding areas by younger, stronger males.

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Fourth, we take a sample of tissue for DNA studies which should tell us whether the koala was moving out of the Campbelltown population or into it from populations further south.

Last, we prepare the skull which will eventually be lodged with the Australian Museum along with the field notes. We now have a large collection of skulls from across the Sydney basin which will be available for study by biologists for as long as the museum survives. It is rather humbling to realise that this collection will be used and valuable long after we are dead and gone.

■ On a different topic, our pager reported a message from the police to say that a koala was in a tree near a busy intersection.

Unfortunately, both of us were in places where we had to turn our pagers off and consequently were not aware of the call till the following morning.

By that time the police shift had changed and we were unable to discover more details.

If any readers can clarify the incident which was on Sunday night please call the UWS koala pager 9962 9996 or Campbelltown-koalas@gmail.com.au.

Bushwalkers vital in finding koalas

13/8/08

By Dr Robert Close and Tristan Lee

IN A recent column we asked readers to sign an online petition and write to Peter Garrett (Labor), federal Minister for the Environment, to ban the import of Savannah cats.

He has now done so after a spirited response from the public.

And the ban has no doubt saved countless lives of our native wildlife and averted a catastrophic increase in the destruction that feral cats wreak in Australia.

The government's response to the campaign demonstrates the power of the community to achieve environmental aims.

We thank the Federal Government and the thousands of Australians who wrote to their local Members of Parliament, signed petitions and voiced their concerns.

For those readers who missed our column on Savannah cats, they are produced by cross-breeding domestic cats with Serval cats from Africa, and weigh twice as much as domestic cats and are extremely agile.

They were originally bred in the United States to exploit the current American fad for designer pets. Unfortunately, that fad has spread to Australia where there is now significant demand for them.

The Savannah cats would be capable of capturing and killing a five kilogram koala such as the young female, Melissa, that we caught

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and radio-collared last week. She was beside the fire-trail that runs parallel to Georges River Road between Darling Avenue and Old Kent Road and is about two years old.

Although her pouch was empty it looked mature and ready to take her first young.

Her locality is surrounded by three of our radio-collared female koalas, June, Vicki and Charlotte, and another female we ear-tagged last week.

This female, that we named 5-bolts after the swimming hole, was probably 10 years old with a large young koala on her back that we were unable to capture.

It's amazing that this old female could have lived so long beside a popular swimming hole without being reported to us and shows how little of the available habitat we have adequately searched.

We anticipate that there will be a breeding female every 20 to 30 hectares from Long Point to Appin.

We particularly need people who bushwalk beside the river in the Airds and St Helens Park to Appin areas to test this hypothesis and report any koalas to us.

Contact: campbelltown.koalas@gmail.com.au or UWS koala pager, 9962 9996.

The big man on campus

20/8/08

By Dr Robert Close and Tristan Lee

MAC KOALA

WAY back in August 2000, a photo appeared in the *Advertiser* of a young, male koala, Tim, perched uncomfortably in a cocos palm in a Ruse back garden.

We captured Tim again last week beside Peter Meadows Road, only 1.5km from his original capture site.

Tim is now twice as heavy as he was in 2002 and he has clearly experienced much since then.

His nose is scratched and his ear tags snapped and worn.

At 11kg, he is likely to be the Big Man of Peter Meadows Creek and we look forward to examining the results of the DNA study to see if he has sired many of the young cubs that have emerged from the rich koala breeding area where he lives.

At 10 years old, Tim should be in his prime and by following his movements we can learn how mature males use their habitat.

In the past we have tended to concentrate more closely on the movements and home-ranges of female koalas because they are easier to track and tell us more about breeding success. However, males are important and we hope to obtain special GPS collars to plot their precise movements by recording his position automatically every few

hours. Because we know so much of Tim's history he is a good candidate for one of the collars.

However, because we don't see him very often we decided to catch him while we could and fit him with a normal radio-collar until the GPS collars arrive.

Capturing a fully mature koala is not without its hazards and Tim put up a good fight before we finally bagged him. We anticipate a real problem when we have to recapture him when the new collars arrive. He will then be wiser and less likely to respond to the flag.

Old, experienced males tend to be very deliberate in their responses to danger and seem to have multiple escape plans.

We have been able to follow Tim's life because community members report sightings to us.

One caller this week, however, complained that someone had souvenired the koala road sign with attached pager number that used to be beside Georges River Road and so was unable to contact us till the following day.

Details: campbelltown.koalas@gmail.com.au or UWS koala pager, 9962 9996.

Balook taken to a safe and leafy home

27/8/08

By Dr Robert Close and Tristan Lee

WHEN a local resident, Terry, found a koala in his front garden near the northern junction of Balook and Pinaroo crescents in Bradbury on Friday night, he was amazed given that his house is in the midst of suburbia.

Worried about the number of local dogs - and the proximity of the busy Appin Road - Terry called WIRES, who then contacted us on the pager.

However, by the time we arrived the koala had vanished and despite our torchlight searching of the many mature trees with heavy foliage in the street, we were unable to find it.

We told Terry and his neighbours, however, that the koala was likely to be noticed by someone

during the weekend if it stayed in the built-up area. Sure enough, at 9am the following morning,

Melissa Douglas noticed a flock of fofikeets making a commotion in a lemon-scented gum at the southern junction of Balook and Pinaroo crescents. She was astonished to find that their concern was over a koala, so she immediately rang the pager - and we were soon at the scene.

The animal (pictured) was untagged and accessible with our eight-metre, extendable pole. So with the help of resident Mark Sullivan, and Terry's neighbour, Tony, the koala was soon in the bag and adorned with two identifying ear tags.

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We normally give naming rights to the person who spots the koala. On this occasion, however, both Terry and Melissa would have had a claim.

Because neither were with us at the time, we made an executive decision to call him "Balook" after the street.

The name sounds suitable - but as we don't know the meaning of the word and Google can't help us - we can only hope that the name is appropriate.



Balook is two years old, in excellent condition, and was probably driven out of nearby Spring Creek by Cramar, a koala discussed at length in recent columns. If we returned Balook to Spring Creek, Cramar might drive him onto Appin Road or back into Bradbury.

We decided, therefore, to put him in an interesting area south-west of Fullerton Crescent where there is a mixture of soil types and a corresponding wider choice of food trees. Most other young males have moved roughly along the course of the Georges River, so we expect Balook will do the same.

Call us on the UWS koala pager 9962 9996 if you see him or contact us on Campbelltown.koalas@gmail.com.au.

It looks as though it's an urban invasion

5/9/08

By Dr Robert Close and Tristan Lee

SEVERAL recent calls have reported koalas in built-up areas.

Last week we reported that Balook had wandered deep into leafy Bradbury.

This week another young, untagged male was reported from a small path off nearby Cuscus Place. The caller had walked this track every day for 24 years and this was the first time she had seen a koala.

Further away in Ruse, we were called to a backyard off Kanangra Crescent where a koala was peering down at an excited dog.

The koala's ear-tag colour combination identified it as Price, a young male that we

had captured previously in a child-care centre in Darling Avenue. Price had not travelled far, as the crow flies, between captures but his actual route may have been further.

A clue to his movements was provided by a caller from Acacia Avenue the previous night who had reported that our radio-collared female, Charlotte, was acting strangely.

With a tiny cub clinging to her shoulders, she was climbing up and down trees beside the road.

Something exceptional was under way and we suspect that a mature male was chasing out of harm's way, but as numbers build we

will eventually be unable to do this and people will share their gardens with koalas.

This is a great thing for Campbelltonians to boast of. But they will have to ask themselves whether they really need to buy that cute little puppy, because when it grows up it won't want to share.

Report koala sightings on the UWS koala pager 9962 9996.

To hear Dr Robert Close give an illustrated account of 20 years of local koala research, come to the Campbelltown Arts Centre on Wednesday, September 10, at 7.30pm. Its part of a National Parks Association/UWS/Arts Centre lecture series.

Price along Acacia Avenue where Charlotte was watching the outcome.

Price would have moved into the fine stand of eucalypts in James Ruse Park, then risked dogs and cars to escape into Kanangra Crescent, which connects with the park.

Readers of this column will remember the high jinks that also occurred during World Youth Day week when young Benedict bolted down Acacia Avenue to Junction Road.

All this activity, we think, illustrates that koalas are being forced into urban areas. As planted eucalypts mature, the urban areas are becoming more suitable for koalas.

At present we are moving invading koalas out of harm's way, but as numbers build we

Several factors in fauna ranking paradox ^{10/9/08}

By Dr Robert Close and Tristan Lee

"WILDLIFE invasion" was the dramatic headline on page one of this paper last week.

The accompanying article referred to our Mac Koala column in which we reported that koalas were appearing more frequently in backyards and we predicted that as the koala population builds up, these appearances would become more common.

The article then compared this prediction with a recent report by the Sydney Metropolitan Catchment Management Authority that listed Dharawal State Conservation Area, Denham Court, Ingleburn, and St Andrews as the third, 40th, 44th and 49th most significant

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areas of fauna significance in the Sydney region where the koala has "vulnerable" status. How can this apparent paradox be explained?

First, there are several other local areas that received a ranking for high fauna significance values. Holsworthy was fifth, Upper Georges River 12th, Woronora 27th, Long Point/Casula 29th and Myrtle/Peter Meadows Creeks 30th. A rating of more than 13 was the "highest" value, over 22 was "very high", over 35 was "high" and over 49 "moderate". Only the moderate-ranking Denham Court

and St Andrews have not recorded koala sightings, whereas we know that in Dharawal, Upper Georges, Myrtle and Peter Meadows creeks our koalas are doing well.

Second, a local population can be breeding at maximum rate while the species itself can still be classified as "vulnerable".

In the case of the three sites mentioned above, all are at risk from fire and climate change. Fortunately, Dharawal is now protected from development, but much of the Upper Georges and Peter Meadows Creek areas, where most of the koala breeding is occurring, is in private ownership and definitely at risk from clearing and ecological damage. Moreover, The Parkway, a potential

roadway from St Helens Park to Liverpool, is still on the books and if built would seriously damage the breeding areas.

Finally, we have little knowledge of the long-term effects of either hazard-reduction burning or not burning, on soil nutrients and consequent food value to koalas.

So all available natural bushland must be retained to give the koalas (and other species) the greatest chance for survival.

Meantime, Charlotte again left her bushland area last week and ventured into a front garden in Dandenong Crescent.

Report koala sightings on the UWS koala pager 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, September 10, 2008

Newspaper helped research program

By Dr Robert Close and Tristan Lee

THE *Advertiser* last Wednesday won the PANPA Newspaper of the Year award.

Also last Wednesday, people attending the NPA/UWS/Campbelltown Arts Centre heritage lecture series, heard Robert recount the many ways in which the *Advertiser* has helped the UWS koala research program.

Robert, in fact, illustrated much of the 20-year history of the program with cuttings taken from the *Advertiser*.

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Our initial problem was that the Campbelltown koalas were scattered so thinly through the bush and blend in so well with their surroundings that they are extremely difficult to study. We now know female koalas have home ranges of 20 to 30 hectares, so the chances of finding one are quite low.

Kieran, a member of our team who now has an uncanny knack of spotting koalas, did not see a koala for eight months when he first star-

ted walking through the bush. Likewise, early European settlers in Australia did not see koalas during the first 10 years of settlement and only then when directed by local indigenous people.

We realised we would have to use the eyes of the community if we were going to find enough animals to complete a study.

We figured that there are enough people walking in the bush to occasionally see koalas.

The next step was to alert the community that we wanted to be notified of sightings.

An obvious solution was to use our local newspaper and it was here the *Advertiser* has proved to be such a great partner.

Our first joint step was to publish a letter to the editor asking people to ring us to report sightings in the Kentlyn area where conditions looked good for koalas but none had yet been sighted.

That very week a caller rang to report a koala in Kentlyn, the first of many.

The *Advertiser* then donated \$20,000 to co-fund with the University of NSW a scholarship for Steven

Ward to start a doctorate in philosophy program.

In addition, the paper has published this column which has allowed us to advertise the contact number koala spotters know they can always find it.

Consequently, we have been able to follow movements of ear-tagged koalas across the region.

The *Advertiser* has also always supported our work in any way it can and it richly deserves its award.

Report koala sightings on the UWS koala pager, 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, September 17, 2008

Plan to preserve the natural habitat

By [Name] and [Name]

WINDMILL

In the context of the recent local government elections, we'd like to draw the attention of our readers to the bushland near St Helens Park, in order to develop a new housing estate. We will go into more specific details in future weeks but let's look

at the broader theme first. The Campbelltown area looks as though it will have to accommodate a large part of Sydney's expanding population. But do we want this to be at the expense of Sydney's largest and healthiest local population? It's not that we are anti-development, but we oppose irresponsible development. Existing residents need to place a value on preserving the bush.

House prices will be increased by being close to natural bushland. As this resource becomes scarcer, houses near natural bush will attract a premium. Even if we ignore any aesthetic value the bush contains, they can be real-estate price value upside for residents opposing development applications in pristine bushland. There is far greater value in preserving our local bush than in ripping it up to provide quick profits for developers. We need to be vigilant. The bush we have in our local

area - between Kendall, York, derburn, St Helens Park and further south - has such great and irreplaceable value. In years to come Australians will remember these times and be shocked at how close we now are to losing the habitat for such an important local population. People will ask in horror how we could have even considered letting this bush be destroyed. We must all remember that we do not inherit the earth from our ancestors. We borrow it for our children.

As a result, we have a new campaign - Campbelltown - Let's save our bush. We expect this email account to be opened from you, our readers. We welcome all - yes, we are what you think of our values. Any topics you would like us to discuss in the future, try questions you have, and so on. We try to reply to all the emails we receive. If any urgent local sightings or information, please continue to call the Bush Ranger on 9902 9999.

Campbelltown Macarthur Advertiser, Wednesday, September 24, 2008

Captured Susan in tiptop form in treetop

1-10-08

MAC KOALA

By Dr Robert Close and Tristan Lee

WHEN Amy Arthur found a scattering of brown, plump, olive pip-shaped droppings beneath the tall grey gum in her backyard in Brickfield Street, Ruse, she knew exactly what they were.

Being a student at Kentlyn Primary School, where koalas have been frequent visitors since at least 1996, she knew that when you find "steamers" in the playground you look immediately into the tree-tops to find the koala that produced them.

Sure enough, there in the upper branches was a small grey shape, which proved, on inspection with binoculars, to be an ear-tagged koala.

The ear tags identified her as Susan, whom we had originally captured last year with her mother Charlotte in Darling Avenue, Ruse.

Since then she has been seen in Peter Meadows Creek and we think she was responsible for a spate of sightings last week in adjacent Den-

ison Street. Because of the risk to Susan from dogs in neighbouring houses, we decided to attempt a capture.

There was some risk because young koalas tend to attempt ambitious leaps from branch to branch.

Normally the soft, forest floor prevents damage to a leaping koala.

Moreover, koalas have adaptations to prevent damage from falls such as hinged ribs and a huge caecum (a fermentation sac in the intestines) which we think functions like a crash air-bag.

Susan, however, was in a limb that hung out over the house.

A jump would have landed on the roof, fence, pavements, rocks or a small patch of lawn.

So we were a little anxious as Kieran climbed 15 metres to be above Susan and started flagging her down.

Fortunately Susan climbed speedily down the tree without pausing to consider a jump and we soon had her in the catching bag. She was in superb condition.

Robert can vouch for the excellence of her health. He has just

returned from a koala project near Coffs Harbour where he captured three females of Susan's age.

None of them was anywhere near as healthy as Susan.

We released Susan at the end of Darling Avenue at a point which is adjacent to her mother's territory but also close to the Georges River.

We hope that bush-walkers will spot her and report her movements on the UWS koala pager on 9962 9996. We've been having trouble recently with the pager, so if we have not replied within an hour, please call again.

A happy end to night of drama

THE UWS koala pager is a two-edged sword for the carrier.

One edge provides invaluable information from community members about koala sightings, while the other edge cuts into the carrier's personal life at unexpected times.

However, we don't begrudge that, because some of the most important findings have come from pager calls late at night.

Last Saturday night, Robert was just sitting down to dinner with friends when the pager rang to report a big koala at Kentlyn.

Fortunately, Tristan was able to check out the call.

He is plotting the interactions of two male koalas not far from the Kentlyn sighting, so was keen to find out who this new animal was.

Tristan was shown the koala in a tree at the end of a long block that connected directly with the bush beside the Georges River.

To his great surprise, the koala climbed down the tree as Tristan and the resident, Lindsay, watched.

Unfortunately, all the gloves and catching gear were in Robert's van, so they had to stand by and watch as the koala walked over to and climbed a nearby tree.

You do not tackle a large male koala unless you are prepared for the sharp claws and large teeth.

Having ascertained that the koala was

MAC KOALA

By Dr Robert Close and Tristan Lee

not tagged, they reluctantly left him in his new tree.

At 10.30pm, however, Lindsay rang Robert to report that the koala had again left his tree and approached the house where Lindsay's dog had seized it by the ear.

Fortunately, Lindsay was immediately able to wrap the koala in a thick blanket and place it in large pen.

Dog wounds can be deceptive, because the skin of the koala is so tough and elastic the dog's teeth can inflict great damage without actually puncturing the skin.

In fresh attacks, the clues to look for are saliva marks on the fur.

In this case, there was saliva only on his right ear.

In addition, he had lost some skin from his nose pad.

No other damage was evident. The koala weighed 9.3 kilograms which means that he is not quite fully grown.

So we put an ear tag in his uninjured ear, named the koala Mitch and released him in a safer area nearby.

Mitch has learned his first lesson about dogs. Let's hope that he's a quick learner.

Report koala sightings on the UWS pager, 9962 9996.

A tale of two cities, two rivers and a shared quest to save native animals

15/10/08

By Robert Close

THERE'S a fascinating book written by Elizabeth Warburton, *From The River To The Hills: Campbelltown, 150 Years*, published in 1986 by the City of Campbelltown. It describes the familiar story of European settlement of the Campbelltown area, the displacement of the indigenous people and the battles fought by early settlers against an unfamiliar environment to produce crops. It also describes the role of the local river in supplying water for the settlement and patches of fertile alluvial soil for agricultural use.

Alert readers by now will have smelled a rat. They'd know Campbelltown was first settled by Europeans early in the 1800s, in fact the first land grant was made in 1809 and the boundaries of the town were founded by Governor Macquarie in 1820. Adding 150 years to either of those dates falls well short of 1986. Even more alert readers will have suggested the Campbelltown in question was the South Australian version and the river referred to was the River Torrens, Adelaide's major river.

Campbelltown in South Australia, like its namesake in NSW, has city status but lies close to the state capital, less than 15 kilometres from Adelaide's CBD,



and has a population of 38,000. It was named by a young man, Charles James Fox Campbell, who originally drove cattle across to Adelaide from NSW in 1838 at age 27.

He bought land beside the Torrens and subdivided it in 1849. He named the subdivision Campbelltown not only to commemorate his own surname but also as a reminder to him of Campbelltown in Sydney.

South Australia's Campbelltown has another similarity with ours. Both are experiencing increasing numbers of koala sightings.

Adelaide's population, however, stems from releases of Victorian koalas between 1920

and 1960, whereas our population is a natural one. NSW's Campbelltown also has a more robust natural ecosystem.

A recent survey of the Adelaide plains showed that in comparison to 1836 only 20 of the original 40 native mammals remain. Moreover, the River Torrens is much degraded in comparison with our section of the Georges River.

Efforts are being made now to restore the Torrens, but it's much harder to reclaim a river than to prevent its original decline. We still have a functioning river; we must protect it.

Report koala sightings on the UWS pager, 9962 9996.

A long journey ends with hope

22/10/08

By Dr Robert Close and Tristan Lee

MAC KOALA

LOOKING back from the northern border of Tarlo River National Park, 30km north of Marulan in the Southern Tablelands, we could see what a tremendous journey Jeremy had undertaken over the past two years since we had released him 14km further south in the park.

That journey included some very steep and forbidding country and required him to cross the Tarlo River.

We have described in previous columns that Jeremy was released, together with a young female, Flossie, as part of a local Landcare project to return koalas to the park and to plant corridors to link the park with neighbouring bushland.

Our scientific interest was to determine whether koalas could still survive in the park, discover which tree species they would feed on, and study how young koalas set up their territories and relate to each other in unfamiliar country.

The project has been a fascinating one, but marred by the technical failure of Flossie's radio-collar after the first six weeks of tracking and our subsequent inability to find her.

For the past two years we have hoped, in vain, that Jeremy would stay in contact with Flossie and eventually lead us to her.

Jeremy did, however, teach us much about how koalas investigate new territory. During late spring and summer, he has chosen a gen-

eral area and then undertaken many small sorties around that point.

In early spring he has then made a major move of several kilometres and then set up a new exploration centre.

So his total movements are considerably greater than the 14km he has moved from the initial release site.

Last weekend, we released a new, two-year-old replacement female into a tree adjoining Jeremy's.

She comes from a site in Kentlyn where we have three radio-collared females that are producing cubs every year. So we are confident that her translocation to Tarlo River will not disadvantage the Campbelltown colony.

In fact we suspect that it may reduce the population pressure.

The new female, 'Mel', was given a veterinary check-up by Dr David Phalen, director of the Wildlife Health and Conservation Centre, Camden, before her release into a tree enclosed by a temporary fence. Inside the fence was water and foliage brought from Kentlyn. Jeremy also was also fenced in, in case he bothered Mel before she acclimatised.

The fences were removed yesterday.

Fingers crossed.

Contact: campbelltown.koalas@gmail.com.au or UWS koala pager, 9962 9996.

AGL conservation will aid critters

By Dr Robert Close and Tristan Lee

PLANS for the proposed AGL electricity-generating power plant between the Nepean River and Appin Road include the conservation and rehabilitation of bushland and cleared land for 170 hectares of the 280-hectare site.

AGL says this large conservation area will help the Campbelltown koala colony.

Appin Road follows the watershed of Sydney's two major rivers, the Georges and the Nepean, with the distance between them a mere four kilometres.

Provided any animals (not just koalas) can cross this narrow gap then they can theoretically move through riverside bushland from Botany Bay to the Hawkesbury estuary.

By crossing under bridges they can make this journey without crossing a major road.

One of our koalas, Dan, who was tagged in Kentlyn, made the journey between catchments and was subsequently seen at Douglas Park beside the Nepean River.

(See www.agleafsgully.com.au)

Others may also follow the Nepean and make contact with koalas near Kurrajong.

Such movements are important for maintaining genetic variability in isolated populations.

We have opined in several columns over the years that vegetation in the gap between the rivers should be retained, enhanced, and, where possible, protected, so that all types of fauna can move between the two systems.

For these reasons, we consider that the 170-hectare reserve proposed by AGL would be a significant step towards achieving this.

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"One of our koalas, Dan, who was tagged in Kentlyn, made the journey between catchments and was subsequently seen at Douglas Park beside the Nepean River."

It would also seal off a significant area which may otherwise be sold for urban development.

To put the conservation area into context, the Yap Yan Pin proposal for residential development at Wedderburn back in 1986 was on a site in the order of 240 hectares, and the area proposed for housing was in the order of 110 hectares.

There was a great deal of community concern and opposition to this proposal when it became known that koalas were in the area.

Coincidentally, a pager call on Friday night reported a koala with cub beside the water canal three kilometres west of Appin and only one kilometre north-west of the Nepean.

This sighting is only five kilometres south of the AGL site.

A search on Saturday, however, only revealed the distinctive koala faecal pellets.

This sighting, of a breeding female, is the first reported from the area between the rivers and indicates the value of protecting and rehabilitating native vegetation in this area.

Contact: campbelltown.koalas@gmail.com.au or report sightings to UWS koala pager, 9962 9996.

Many on the move

By Dr Robert Close and Tristan Lee

MAC KOALA

KOALAS have been particularly active over the past two weeks.

At least two untagged males have been belting between O'Hares and Bellbird roads at Wedderburn, while another obstructed the Wedderburn causeway by walking down the middle of the road.

Then workers upgrading the old water canal west of Appin saw the mother and cub that we reported last week. By this time, however, she had crossed the now empty canal, heading west. Also near Appin, a koala was observed walking beside Appin Road one kilometre north of the roundabout.

On a sad note, a dead cub was reported beside a fire trail at Kentlyn.

Unfortunately the body disappeared in the hour or so between our receiving the report and our arrival. We suspect a dog removed it.

So we were unable to determine either the cause of death or its likely mother (from DNA). The cub was found within the territory of June, one of our radio-collared females.

Although we had seen June with a cub earlier this year, we had not noticed it for some weeks. The period between change-over from a milk diet to eating leaves seems to be a difficult one for young koalas, particularly if the mother is elderly.

June (daughter of matriarch Shirley), how-

ever, is only eight years old and so should not have been troubled.

Another of our radio-collared females, Courtney from Spring Creek, is also about eight years old. With the aid of our regular spotters from Ironside Avenue, Robert and Jeff, we caught her this week to change the battery in her collar.

To our surprise she also lacked a cub. She was found close to the edge of bushland at Spring Creek, St Helens Park, and has a history of wandering into suburban areas. Residents near Woodlands Road should be aware.

Talking of suburban invasions, young Susan was at it again. Three weeks ago she invaded houses in Ruse so we took her to bushland near the Georges River.

Last week she was seen beside Darling Avenue next to Charlotte (another radio-collared female) then on Sunday morning in broad daylight she was seen near the tennis courts at James Ruse Park, then later walking down Old Kent Road near Junction Road.

We've now taken her to the area where Melissa was captured before her translocation to Tarlo River National Park.

Please report sightings to the UWS koala pager, 9962 9996.

Female's short life

12 NOV 08

By Dr Robert Close and Tristan Lee

THE pager message was blunt: "Please call about dead koala in front yard".

It was from the same callers at Wedderburn who had reported a koala high in a tree two weeks previously. The koala was a young female, only 4.5kg, with an immature pouch.

She would have only recently left her mother and was probably in unfamiliar territory. There were no outward signs of damage except for a dishevelled coat. We suspected the family dog.

The post-mortem showed that the koala was covered in fine dust that had penetrated deep into the fur and filled her eyes, ears and mouth.

Beneath the skin was heavy bruising of the back and chest but there were no signs of tooth marks.

Koalas' skin is so tough and flexible that when a dog bites, the teeth often won't penetrate the skin but nevertheless will still damage the flesh and leave individual marks. Inside the body cavity was a lot of blood and the liver was ruptured.

Our guess is that the koala was hit by a car. The dog then found the body and dragged it home, hence the dust in the coat.

The collision was probably on Friday night on O'Hares Road. If anyone can give us some infor-

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mation about the accident we would be grateful.

On our way home with the dead koala, the phone rang to report a koala beside the road on the causeway.

We'd had another call about this koala the previous night. It turned out to be Martine who we had originally captured almost exactly 10 years before in her current spot when she was the same age as the dead one in the car.

This was the first report of Martine since we removed her radio-collar some months ago.

She faces an interruption to her placid life when construction starts on the new bridge. The tree she was in is likely to be removed. We predict that she'll retreat to the higher parts of her territory.

Another pager call reported a mother and cub near the Darling/Acacia Avenue corner at Ruse.

This would have been Charlotte, one of our radio-collared females.

The caller was worried that a large dog from a nearby house was roaming the area at 1 am. We appeal to dog owners to keep their dogs in at night.

Report koala sightings on the UWS pager, 9962 9996.

19/11/2008

Feistiest koala in 18 years

By Dr Robert Close and Tristan Lee

LAST week we reported a dead, young, female koala at Wedderburn.

A few days later another young koala was reported in a tree only 30m from where the dead one was found and only 15m from where an adult koala was seen a few weeks earlier.

Unless the two juveniles were dispersing from another area, it is likely their mothers are also nearby. Prior to these sightings we have only seen male koalas in this part of Wedderburn.

Although the second juvenile was in a catchable position, she narrowly avoided capture and escaped beyond reach of our flags. This escape was disappointing as we would like to put eartags on all the koalas in that area of Wedderburn to find out what's happening.

A large koala from Kentlyn, however, didn't escape us. He'd climbed over a tall, chain-link fence to enter a garden, then found himself trapped inside. When we arrived, he'd climbed the fence and was perched in a small over-hanging tree, with the resident standing guard to prevent him reaching a larger tree. It looked like an easy catch but we were hampered by having our catching team on either side of the fence. Moreover, the koala was

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one of the most feisty animals we've encountered in 18 years of captures!

Before we managed to bag him he bit Robert firmly in the thumb. Were it not for his double-leather gloves, the wound would have been serious.

As it was, Robert still sought medical aid and a tetanus shot. This experience is a reminder that koalas are well equipped to bite and scratch.

The resident claimed her naming rights and named the koala "Tyjo", a composite of her children's names. Koalas usually relax when placed in the catching bag and let us weigh, measure and eartag them without complaint. Not Tyjo; he fought us all the way. We expect he'll be a successful male and look forward to people calling us on the **UWS koala pager, 9962 9996** to report his movements.

■ Don't miss Michael Paul, a local ornithologist, who will talk about Campbelltown's fascinating birdlife at 7.30pm tonight, November 19, at Campbelltown Arts Centre.

Report koala sightings on the UWS pager, 9962 9996.

Alan found sick and dishevelled

26/11/08

By Dr Robert Close and Tristan Lee

BACK in March 1998, about 250m north of the fire station on Hansens Road, Minto Heights, we captured, weighed, measured and tagged a young male koala weighing 7.3kg.

Named "Alan" after its sponsor, we thought he was about three years old.

We saw him again last Sunday, when council ranger John Fedeschi rang to report a koala in a small tree beside Derby St, Minto Heights.

As the crow flies that's only one kilometre from where he was captured 10 years before.

John warned us that Alan was unresponsive and, with scarcely any aggression, allowed us to pick him out of the small tree and push him in a bag. Alan looked poor, too, with a dishevelled coat, damaged ears and cracks in his lower lip.

Although he weighed a very healthy 10.5 kg, he was clearly in need of medical attention so we took him to the Wildlife Health and Conservation Centre at University of Sydney's Vet School. Here we were amazed to see him completely ignore us and tuck into foliage that we'd cut for him.

However, we had to prop him into a tree fork as he appeared to have lost effective use of his legs and right arm. This arm was badly swollen but with no outward signs of trauma.

It will be interesting to see what a complete check up will show on.

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Our records show that in the last 10 years Alan has been reported only twice - on October 30 and 31, 2002 at 26 Howard St, Minto Heights, about one kilometre north-east and south-east of his initial and last capture points respectively.

At that time he was sharing a tree with Lynn's grown cub, Kent, a female, Zeena, and her independent cub.

We suspect love was in the air because Zeena would have been ready to mate again after weaning her cub.

Something similar was also happening last week at Rose where radio-collared Charlotte and her almost independent cub were seen in the same tree with a young male cub. In this case, however, Charlotte was seen to approach the male and force him to jump into an adjacent tree.

Please report sightings on the MWS paper number 9362 2400. Don't forget please contact us again. We left the wrong number twice.

Stop press. As we went to deadline yesterday evening, Dr Robert Close contacted the Advertiser to report that Alan had been euthanased. "He had multiple breaks in his right arm. Curiously he also had a broken leg which mended in the wild."

A high life can get very tough

3/12/08

By Dr Robert Close and Tristan Lee

LAST week we described the plight of a 13-year-old male koala that we had to put down because of a badly broken upper arm.

He also had severe arthritis in his legs, one of which had been badly broken. Life in the trees can be tough.

Another injured koala was reported last week via the pager at 2am when he was resisting efforts to chase him to safety off Woodlands Road, St Helens Park.

We went out to find him but by then he'd vanished.

At 4am the pager rang again to say that a koala was bellowing outside a house in Kalyan Street, Bradbury, 300 metres from Woodlands Road, apparently in response to the calls of a channel-billed cuckoo.

The caller reported that the koala (pictured) was quite high in a tree, so we expected he would remain there until we could inspect him in daylight.

Sure enough, next morning we found him feeding calmly as students passed beneath him on their way to the adjacent Woodlands Road Primary School.

However, he appeared to be holding his left hand in an unusual way and nibbling at it. We soon had a catching team assembled and ready; then, watched by a class of students, we flagged the young koala down the tree and into a catching bag.

He was a young, untagged male, therefore in dispersal mode. We ear-tagged him and the spotters named him "Amico". He had quite deep lacerations to his left hand and a crushed toe, so we took him to the Wildlife

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Health and Conservation Centre run by Sydney University at Camden. Vets said the hand was badly infected and had probably been run over by a car.

Yet another call came in about an injured koala that had been hit by a car on Georges River Road near Botany Place, Ruse, an area where we've had several recent sightings. The driver had troubles with our pager system and took the koala to a vet in Strathfield.

Eventually it was taken by WIRES to the Wildlife Centre.

Her eartags identified her as "Becky", first captured as a two-year-old, three kilometres north, in September 2006.

The vets could find no obvious damage and we expect to release her and Amico shortly.

Please report all sightings on the UWS pager number 9962 9996.

Becky's death is an important loss

By Dr Robert Close and Tristan Lee

WE spoke too soon last week in predicting that the female koala, Becky, would survive her collision and be released back into the bush.

Although she had no outward signs of damage, X-rays showed that her ribs were badly broken and that parts of some organs had been forced through her diaphragm damaging her lungs.

Sadly she died on the operating table probably because her damaged lungs could not support the anaesthetic.

She was an important animal because at four years of age she had survived the early, hazardous years and we think that she had established a territory in Shirley's old, vacant area.

We have found, hitherto, that once the female koalas have established their own territories, their chances of then surviving to the age of 13-14 and producing a succession of cubs are good.

Fortunately, Becky's neighbours are breeding well. Immediately north of Becky's former home near Botany Place, Charlotte, who lives beside Darling Avenue, has a large cub, and a caller this week reported an untagged female with a young cub also beside Darling Avenue but across Old Kent Road.

It has been a busy week; besides the latter two koalas, nine others were reported, none of which appeared to be tagged.

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10/12/08
So it is clear that although we have tagged 140 koalas there are still plenty that we are yet to identify. Of the nine reported this week, one was dutifully crossing Appin Road near the koala crossing sign. Another, a young male, was seen and heard in Acacia Avenue, a popular spot for koalas this year.

Another male was seen and heard at O'Hares Road, Wedderburn, also a popular location recently.

Two sightings were recorded beside the causeway across the Georges River on Wedderburn. Then, perhaps the most interesting, four koalas were reported from the same tree at Kentlyn beside Georges River and Peter Meadows roads.

The four included a large cub, its mother, and two other adults, all within a few metres of each other. Unfortunately we were only contacted the following day, by which time the party was over.

We have seen this phenomenon twice before and we think that two females are being attracted to the same male, perhaps by his bellowing or his pheromones (smell attractant).

Whatever the case, it appears that the koala population continues to do well.

Please report all sightings on the UWS pager number 9962 9996.

By gum, look at this

By Dr Robert Close and Tristan Lee

LAST week we captured, ear-tagged and reported a young female koala, Liz, and her 500-gram cub, Greg.

They were in a tree from which they could peer over fence of a house that backs on to the extension of Darling Avenue, Ruse.

This avenue marks the border between suburbia and the Ruse bushland.

It is also part of the proposed "Georges River Parkway", a road that, if built, would provide an alternative link from Appin to Liverpool. Although it may never be built, it is still on plans. It is also a place of many sightings of koalas.

A few days after we captured Liz and Greg, another untagged female and cub were reported less than 100 metres from where the former were captured. Unfortunately, we were unable to capture them at the time. We hope that they will be spotted again soon before the cub becomes independent.

■ Although some koalas, such as our radio-collared Charlotte, usually respect the Darling Avenue boundary, others don't, and wander into suburban gardens.

One such outing was reported to us on Sunday. He had moved through at least three properties and crossed Dandenong Crescent to reach his position in a tall ironbark in McPherson Place [see front page story].

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The wind was too strong and it was difficult for us to attempt a capture to leave him where he was. As he tried to press he is still in the scrub and is comfortable.

■ We are interested in learning why koala would move into the bushland under dangerous conditions of suburban trees better watered or is there a diversity of trees? Are they following ancient creek lines? Or are they being forced out of prime bushland by experienced, stronger koalas?

A call that came in later than that was the probable answer.

A large, untagged male koala was seen in a tall grey gum beside Old Kent Road, 100 metres from Darling Avenue, 100 metres from the young koala's home in McPherson Place.

So the simplest explanation is that he was being pushed out by the experienced koala. Is he also responsible for the sightings of females and cubs at the Darling Avenue extension?

Community sightings will only help us answer such questions.

Please report all sightings on the DWSP number, 9962 9996.

State funds five-year plan to protect wildlife

NSW is the first state in the country to have a koala recovery plan. The \$1.23 million project was launched late last month by Deputy Premier Carmel Tebbutt.

The five-year plan aims to help communities deal with risks to their local koala populations and ensure their long-term survival.

"There are a number of factors that [affect]

koalas, including urban sprawl and climate change. We're putting this plan in place."

Local biologist Dr Robert Close, who led the plan, said the plan would benefit Carmel Tebbutt.

He said Campbelltown had a significant koala population.

Campbelltown Macarthur Advertiser, Wednesday, December 24, 2008

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, December 31, 2008

Campbelltown Macarthur Advertiser, Wednesday, January 7, 2009

Campbelltown Macarthur Advertiser, Wednesday, January 14, 2009

Campbelltown Macarthur Advertiser, Wednesday, January 28, 2009

Note:

No column published on this date

Death plunge ends a chase

21/1/09

By Dr Robert Close

IN almost every zoological study there is a risk to both the animal being studied and the researcher.

Indeed, two of my good friends and colleagues have suffered serious injuries, one fatal, as a direct result of their studies.

With our koala studies, there is always a risk to both koala and catcher from breaking tree limbs, as occurred recently when we were attempting to catch a big male, "Hendo" to change his radio-collar.

Large males tend to be difficult to catch because they often choose large trees and ignore or push past the flag.

When we started the catch attempt, Hendo was within reach from the ground of the flag on our tallest extendable pole.

However, he pushed past the flag and climbed to the top of the tree.

We decided, because we had a catching team gathered and all the gear available, to climb the tree to flag him down.

Again Hendo pushed past the flag and moved to a side branch.

This is standard behaviour for male koalas that are fighting.

The dominant koala will force his opponent onto smaller and smaller branches.

Often this results in the weaker animal jumping from the tree to escape or falling.

During our studies we have occasionally

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found dead males beneath trees, presumably as a result of losing a battle.

Koalas, however, have several adaptations which enable them to survive falls such as hinged ribs, which avoid breakages, and huge intestines which, we think, absorb the impact of a fall.

In Hendo's case, however, the branch he was on broke and he fell to the ground.

We immediately took him to the University of Sydney's Wildlife Health and Conservation Centre at Camden for a veterinary check-up.

Unfortunately, he died while under anaesthesia.

A detailed post-mortem examination showed that Hendo had suffered a severe brain haemorrhage, which led to heart damage.

This was our first fatality since 1993 and since then we have made more than 300 successful captures.

Nevertheless, it was a terrible experience for all concerned.

We have to console ourselves that if we hadn't started our program of captures and tagging koalas that our knowledge of Campbelltown's koalas would have largely been conjectural.

Please report koala sightings on the UWS koala pager 9962 9996.

Gone to ground in a cool cave

4/2/09

By Dr Robert Close and Tristan Lee

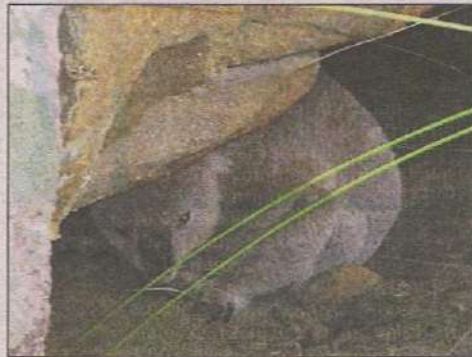
ON a recent hot morning, four of us were searching for radio-collared Tim, a koala who lives in the bushland beside Peter Meadows and Georges River roads.

His radio signal was strong and led us to a small ridge capped with sandstone boulders.

For 15 minutes, we scoured the trees on this ridge but to no avail. Sometimes the radio signal bounces off thick vegetation and rocky ridges. This bouncing can lead us all over the landscape, but on this occasion all our efforts led back to the ridge.

The old cliché "search high and low" applied here. After searching the tree-tops, we then started a search of all the cracks and caves on the ridge.

Before long we spotted Tim sheltering in a small cave (pictured). Our first fear was that Tim was sick, because koalas who are feeling poorly are often found on the ground.



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On this occasion, old droppings in the cave indicated that he or other koalas had been using this cave for some time.

When we attempted to catch him he resisted strongly and close inspection showed no sign of any medical problem. We then changed his radio collar and fitted him with a new GPS collar that will communicate with satellites to plot his position every few hours. This new advance will give us valuable new information about Tim's daily movements.

Formerly we had to track him manually, a task that we could afford to do only once every two or three weeks.

A lot can happen in two weeks and the new collar will allow us to fill in the gaps. For example, we will be able to find out how often he stays in or near his cave and whether this use is related to daily temperature. Does Tim use the cool, moist cave to avoid the heat?

It's amazing that none of our radio-collared koalas has ever been lost to fires in the 15 years of our radio-telemetry studies.

We have long suspected that koalas use caves to escape bushfires, but whether the koalas run before the flames and shelter in the rocks, or merely shelter from the heat of the day in a place that coincidentally also protects them from fire, we don't know.

We hope that Tim and his new collar will help us answer that question.

Please report all sightings on the UWS pager number 9962 9996.

They may drop in for a drink

11/2/09

By Dr Robert Close and Tristan Lee

A FAVOURITE question for trivia nights is the meaning of the word "koala".

Unfortunately, the expected answer – "does not drink" – and the statement itself are both false. Several photographs in emails we've received over the past week from heat-stricken Adelaide have indicated that koalas on occasion *will* drink.

One of the photographs (right) showed a young koala drinking from a cyclist's water bottle. Another showed one sitting in a bowl of water and a third showed a koala drinking from a swimming pool.

In these cases, however, the cause of the thirst may not be the heat directly, but rather from renal failure caused by toxic chemicals such as oxalates in their diet.

The disease causes a violent thirst that overcomes the koala's timidity.

A couple of years ago, one of our tagged koalas, Louise, caused a driver to stop in Wedderburn Road, then approached him when he got out of the car as if demanding attention.

When the driver offered water, Louise drank and drank. Unfortunately, there is no cure, and Louise eventually died.

Renal failure is prevalent in the Adelaide koala population which derives from animals moved from Victoria.

There is debate whether Adelaide ever had a natural population of koalas.

Some of our Campbelltown koalas are finding the hot conditions difficult. Tim, whose unusual behaviour we reported last week, continues to shelter in rocky caves, and

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Amanda, our 14-year-old senior citizen, spent one day sitting at the base of a tree.

In the evening she climbed to safety. We've been keeping an eye on her and she seems to be as healthy as could be expected for such an old animal.

When koalas are too hot, they sprawl out as best they can in a shady area exposing as large a body surface area as possible for heat loss. In the sprawl position the white fur of their chest and belly reflects incoming sunlight. In cold conditions they reverse the procedure by curling into a tight ball and exposing only dark fur.

If you live in one of the koala-rich areas of Campbelltown, consider leaving a bowl of water in your garden, and if you have a swimming pool leave a thick rope dangling in one corner in case a koala falls in while trying to drink.

Please report all sightings on the UWS pager number, 9962 9996.

Males on the move

18/2/09

By Dr Robert Close and Tristan Lee

LAST week, at Blaxland, we presented a talk to the Blue Mountains City Council Bushcare Program on the possibility that koalas would eventually colonise the central Blue Mountains area.

Using what we know of koala biology in the Campbelltown area and other sightings in the Sydney basin, we predicted that breeding female koalas would be sighted near the Great Western Highway within 15 years.

Firstly, we know that the Campbelltown population – and that near Kurrajong, Bilpin and Colo Heights – are long-lived, healthy and are producing animals that are dispersing into new areas.

Secondly, we know that the tree species that are favoured by Campbelltown koalas are common along the scarp of the mountains between the central Blue Mountains and the known koala colonies.

Thirdly, we believe that rocky gorge areas provide shelter from fires.

Consequently, the Blue Mountains scarp should provide adequate habitat to allow koalas to disperse from the south and the north.

Fourthly, we know that male koalas can disperse at least 20 kilometres from their birth place. Consequently, they should eventually be able to move the 20 kilometres from Kurrajong or the 40 kilometres from Campbelltown.

In fact two young, male koalas have already

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appeared in Springwood. Fifthly, although we know that most young females will settle down within a couple of kilometres from their mother, an occasional female will move several kilometres.

Consequently, we predict that the arrival of female koalas in Springwood is only a matter of time but may take several generations as daughters and granddaughters move successively closer.

Over the past 20 years we've been plotting the spread of koala sightings from Wedderburn north towards Liverpool and south towards Appin. Last week we received our first sighting of a koala at Simmos Beach, Macquarie Fields. Unfortunately, we don't know if it's a male or female. The nearest female was sighted two years ago at Long Point, which is not far away.

Crucial to the koalas' movements are the river and adjoining bushland with a mix of Sydney sandstone and Cumberland Plain soils and vegetation.

A plan for development of 300 houses and town houses in such an area off Kellerman Drive, St Helens Park, is currently available for viewing at the Campbelltown library and Civic Centre. Submissions must be made before February 27.

Please report all sightings on the UWS pager number, 9962 9996.

Lonely Jeremy goes for wander

25/2/09

By Dr Robert Close and Tristan Lee

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READERS might recall that in 2006 we released two young, radio-collared Campbelltown koalas in Tarlo River National Park, 100 kilometres to the south-west near Marulan.

We wanted to learn how koalas choose a territory in unfamiliar country, and the local Landcare group wanted to see koalas in an area where none had been reported in 30 years and for which they had been planting tree corridors.

Our plans were thwarted, however, when the radio-collar of the female, Flossie, suddenly stopped transmitting after six weeks.

The following day, what we thought was a new animal was spotted in the same area; but subsequent searches to find either Flossie or "the stranger" failed.

Meanwhile, the young male, Jeremy, was energetically moving across the park, revealing a fascinating pattern. He would settle in an area in summer and explore it thoroughly, then in spring would start moving north, travelling as far as 6.5 kilometres in a month.

When we changed his collar in October 2007 we moved him four kilometres back to where we'd last seen Flossie in the hope that Jeremy would lead us to her. Jeremy responded by immediately heading north again.

By October 2008 had travelled 10.5 kilometres from the original release site. At that

stage we captured Melissa, another young female koala from Campbelltown, then recaptured Jeremy and released them together at a site where Jeremy had spent the first half of 2007 before he started his northward journeys. Since then the two have stayed within a kilometre of each other and the 2008 release site.

This is a good sign because we would have predicted that Jeremy would have headed north again for at least a month or two.

The big test will be in spring 2009 when Jeremy will certainly head off again – unless he considers himself big and wise enough to establish a territory that we hope will include Melissa.

But what of Flossie?

Earlier this year, two members of our team spent a weekend searching for her and to our great joy found some fresh koala fecal pellets not far from where we'd last seen her. In addition, some of the pellets were those of a cub.

The father could not have been Jeremy because he was too far north at the time.

So the Tarlo population now consists of at least five animals.

Please report all sightings on the UWS pager number, 9962 9996.

Happenings in Appin

4/3/09

By Dr Robert Close and Tristan Lee

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WE WERE taken to task recently about a statement in our column (February 18) that we'd been plotting the spread of koala sightings "north towards Appin".

A reader noted that koalas had already reached Appin and referred to a recent sighting of a mother and cub beside the water canal a few kilometres west of Appin.

He was right in saying that koalas have already reached Appin. We reported our first sighting there - "Neal" from Neal Place - in September 2001. Since then, we have recorded several roadkills (all males) and sightings from the Appin-Bulli Road and the Appin-Campbelltown Road.

However, we have recorded only two females between St Helens Park and Appin.

These were the canal animals referred to above and reported in this column on October 20 last year, and a juvenile that was killed by dogs in Kennedy Street, Appin, on December 11, 2001.

From St Helens Park north to Minto Heights, in contrast, many females with young have been reported.

We consider that breeding females occur in that area at a density of about one per 20 ha and that young females are gradually spreading south and north. It may be, however, that females reside all the way to Appin and we are just not finding them. If so, residents are

either not seeing them or not reporting them.

The number of potential reporters in that area is certainly far lower than in the suburbs of Campbelltown.

South of Appin, intriguingly, another population of koalas occurs with sightings and roadkills recorded from Wilton Road, Wilton, Bargo and Pheasants Nest.

Tristan's DNA studies indicate that the southern and northern koalas can be distinguished and furthermore that these groups of koalas meet at the Appin-Bulli Road. This road also marks the edge of the Georges River and Nepean River watersheds.

Our hypothesis, then, is that the female and cub described above from the canal, which is beside the Nepean River, will be part of the southern population rather than the Campbelltown group.

We need DNA samples to test this suggestion, so specifically ask landholders in the Appin area to report any koalas sighted on the UWS pager 9962 9996.

For a fascinating account of the behaviour and movements of dingoes in the Warragamba catchment, don't miss Brad Purcell on Wednesday, March 11, at the Campbelltown Art Centre at 7.30. He'll be the first speaker in the NPA/UWS/Art Centre Heritage Lecture series.

Carelessness puts Courtney at risk

By Dr Robert Close and Tristan Lee

MAC KOALA

MANY of Campbelltown's suburbs are fortunate in having a long buffer zone of bushland between them and the Georges River.

This strip of bush is remarkable because it consists of three major types of soil which in turn support different communities of plants. This diversity generates a rich array of vertebrate and invertebrate animals.

All of this is accessible within minutes to many Campbelltown residents.

The junction between housing and the bush, however, is a fragile one where we have seen increasing contact between humans and koalas. Two such boundaries are Darling Avenue and its side-roads at Ruse and Ironside Avenue at St Helens Park.

Several koalas have been spotted recently near Darling Avenue including Alice who appears to have established a territory a kilometre down Old Kent Road from her mother, June, and her sister, Vicki, who live near the Russian Orthodox Retirement village and Kentlyn Primary School.

The Ironside Avenue boundary is more precarious because it is closer to thick bushland and Spring Creek, an important tributary of the Georges River.

Spring Creek is the home of at least three female koalas, Kris, Martine and Courtney and at least one male, Cramar. The latter two are regularly sighted by residents of Ironside

Avenue. Because Courtney carries a radio-collar we find her every second week and now know her area well. Sadly, her beautiful area has been badly affected by thoughtlessness.

In the first few metres from the road piles of dumped garden waste have led to foreign species establishing themselves. A few metres further in we see dumped litter, shopping trolleys and occasional piles of building waste. From here we can see across the creek to where arsonists have burned a large area of Courtney's territory.

The creek-side vegetation is festooned with ribbons of plastic waste despite the gross pollutant trap at the head of the creek, while the creek itself contains old tyres, shopping trolleys and a variety of unsightly materials.

Above the pollutant trap, the creek becomes a concrete-based washway stained by a white liquid released from somewhere above.

Fortunately, Courtney has survived the fires and presumably doesn't notice the rubbish.

However, the dead trees near a storm water outlet off Ironside Avenue would concern her.

Don't forget the talk on local dingoes on Wednesday, March 11, at 7.30pm, at Campbelltown Art Centre.

Report koala sightings to the UWS pager, 9962 9996.

Be alert for old-timer

18/3/09

By Dr Robert Close and Tristan Lee

MAC KOALA

It was another busy weekend. On Saturday we were called to the Campbelltown-Liverpool Pistol Club's range off Georges River Road, Kentlyn.

A koala had marched into the club room, but by the time we arrived, it had retreated to the safety of a nearby grey gum. And a sorry, skinny old fellow he was, with a brown, dishevelled coat and only one good eye. We decided not to put him under the stress of capture, so left him where he was.

We suspect that he's been driven out of the prime areas along Peter Meadows Creek and will probably end his days in unfamiliar, less suitable habitat. He's likely, therefore, to end up on Georges River Road or in somebody's garden. Local drivers should be aware of this and dog-owners in the area should be alert to any unusual barking.

■ On Sunday, we were called down to Tarlo River National Park where readers will recall we have released three Campbelltown koalas, Jeremy, Flossie and Melissa.

Jeremy, over the past two-and-a-half years has been giving us fascinating information on how young males move about the landscape.

Last Thursday, however, the radio-trackers only found an empty radio-collar. Jeremy, presumably, had caught a twig under the collar and levered it up

over his head. We always fit the collar loosely to allow this and also room for growth.

Fortunately, after three days of searching, Jeremy was rediscovered so we went down to catch him and replace his collar. We caught him easily and found him weighing in at nine kilograms and in good condition. Jeremy weighed only 6.7 kilograms when we originally captured him near the baseball field off Kelleman Drive, St Helens Park.

That area is now part of a proposed development of 300 dwellings. We have found other koalas on the site too. It formed part of the home-range of radio-collared Nathan who roamed over most of the Spring Creek valley. Robert, son of Elle whose home-range was immediately east of the development site, was also sighted beside the baseball field but later was killed on Appin Road. Breyk was another young male also tagged beside the baseball field. Other youngsters have been seen but not captured on or near the site so it appears that the area functions as a dispersal corridor for young koalas.

Report any koala sightings to the UWS pager, 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, March 25, 2009

Our Charlotte set for television stardom

By Dr Robert Close and Tristan Lee

WE reported recently that Darling Avenue and its sidestreets in Ruse were popular pathways for koalas.

One of those sidestreets, Acacia Avenue, is particularly well used and we hear regularly from residents whose nature strips are frequently decorated with the distinctive koala faecal pellets.

This week we received two calls from Acacia Avenue to report that koala "Charlotte" was in residence. One of the callers had originally reported her in October 2005 and was pleased to learn that she was still fit and well.

That original call led to Charlotte's capture

Georges River bushland via tree corridors beside the Catholic Church and a recently restored (by Campbelltown Council) area of bushland beside Botany Place.

Perhaps the most important factor is that soils in this area are transition soils which have both sandstone and the more fertile shale elements. Presumably the more fertile soils lead to more nutritious foliage.

Interestingly, we found Charlotte recently perched in a camphor laurel tree in the middle of an open paddock.

Other studies have shown that koalas will eat the foliage of this highly aromatic tree despite its normally toxic and apparently narcotic chemicals, camphor, benzene and

naphthalene. Incidentally there is currently some controversy on how serious a weed this tree actually is.

Some authorities say it is good for forest regeneration and as food for rare pigeons while others dispute those claims.

Whatever the case, Charlotte was filmed in the camphor laurel by a UWS student film crew and will eventually be seen in the series *Angles* on channel TVS.

Report all koala sightings on the UWS pager 9962 9996. We've been experiencing some difficulties with the pager service recently so please don't despair if we don't respond immediately. We are trying to set up a more functional system.

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and her being fitted with a radio-collar. Since then she has resided principally in the triangle defined by Darling Avenue, Old Kent and Georges River Roads and has produced a cub each year. In fact, her independent cub from 2008, "Curls", was also seen recently in Acacia Avenue.

We are intrigued why Acacia Avenue should be so popular. It runs roughly parallel to and 100 metres north of Georges River Road and has some large street trees which include grey gums and red gums, both favoured food trees.

In addition there is ready access back to the

Campbelltown Macarthur Advertiser, Wednesday, April 1, 2009

Cubs do not be the young ones very long

By Dr Robert Close and Tristan Lee

ONE of our most interesting studies is the relationship between mother koalas and their cubs, particularly female ones, and how they become independent of each other.

Last week we reported that Curls, the female cub from 2008 of radio-collared Charlotte, was near Acacia Avenue, Ruse. She was still there this week, walking along Solitary Place adjacent to James Ruse Park.

She had been sighted by a resident who photographed her. From the photograph we were able to identify her, not only from the ear-tag colours but also the numbers on the tag. Her mother Charlotte, meanwhile, was

tracked down in nearby Tumut Street. Is she driving Curls away from her normal territory in the Darling Avenue/Old Kent Road/

Georges River triangle or merely showing her the bushland corridor to the Georges River?

We were also called to Minerva Road, Wedderburn where we found a young, untaged male. This was the first koala seen by the caller in 20 years of residence at Wedderburn. Coincidentally, the same resident spotted another koala at Wedderburn Gorge on the same day. The chances of that happening would be tiny!

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■ For the second time in two weeks, we were hosts to a film-maker, this time a documentary maker from the US interested in the plight of koalas in Australia.

Although we showed her several of our radio-collared females and Tristan told her about his DNA findings, she was more interested in the effects of development on removal of koala habitat. This was a recurring theme which had shocked her during her Australian investigations.

Accordingly, we took her to the proposed development site for 300 housing units at Kellerman Drive, St Helens Park, where she filmed the two metre-high, barbed-wire-stranded fence that demarcates the site and

associated bush clearing that preceded the construction of the fence. It will be interesting to see how she interprets the situation in the completed documentary.

Finally, we were informed of a koala sighting at Yerrinbool, a reminder that Campbelltown is not the only koala population in the region.

We think koalas move out of the restricted access water-catchment areas surrounding the Avon Dam area and make the perilous crossing of the highway to Yerrinbool and places west.

Please report all koala sightings on the UWS pager 9962 9996.

Wingello wombat poses a bit of a puzzle

By Dr Robert Close and Tristan Lee

PROBABLY everyone has wondered why human males have nipples.

Nobody, however, has ever wondered the same about male koalas, or any male marsupials for that matter - because they don't have them.

Only the eutherian mammals, which comprise all mammals except marsupials and monotremes (echidna and platypus), have nipples in both sexes.

There are several other differences between the sexual strategies of marsupials and eutherian mammals, the most obvious of which is the formation of the pouch or marsupium.

Other differences are not so obvious and relate to the embryological development of the young.

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However, a little biological background is required to understand these differences.

Firstly, early embryos of all mammal types have two ducts, one of which develops into the male sexual organs whereas the other develops into the female organs. In normal individuals only one of these pathways can develop. However, if both pathways run in the same animal, then an intersex can result: that is, both male and female reproductive organs can appear, though usually incomplete.

In eutherian mammals, production of testosterone inhibits the female pathway and male

organs result. This can be achieved experimentally by injecting testosterone into a normal female embryo.

Normally, testosterone results from the action of the sex determining genes which are carried on the Y-chromosome. This chromosome is found in all male cells which also have an X-chromosome. Females have two X-chromosomes. In marsupials, however, testosterone does not dictate which pathway is chosen. There is much to learn.

That is where Basil Family comes into the story. Basil is a hand-raised intersexual wombat from the Southern Highlands. He has a pouch but no nipples, an empty scrotum and undescended testes. Such a profile has never been reported before. In all other intersexes if a scrotum was present then the pouch was absent and vice versa.

Furthermore, a scrotum occurred only in XY or XO animals and a pouch only in XX or XXX animals. So Basil is clearly an animal of great interest. Studies we conducted last year indicated that he was normal XY.

However we lacked knowledge of the chromosomes of normal male and female wombats. So Robert and two advanced science students, Noor Jawad and Ben Johnson recently drove to Wingello to collect a skin sample from Basil and two mates to complete the fascinating chromosome study. Results should be known in two weeks.

Please report all koala sightings on the UWS pager 9962 9996.

Strange but true

Did you know koalas are mammals like us, but male koalas don't have any nipples. Just in case that question ever comes up in Trivial Pursuit, you might want to look at our weekly Mac Koala column on page 91.

Campbelltown Macarthur Advertiser, Wednesday, April 8, 2009

Bits and pieces about Wingello wombat

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By **Dr Robert Close** and **Tristan Lee**

LAST week's column on Basil Fawly, the intersex wombat, drew some comments from interested readers, so we'll examine his sad case in more detail. Basil has a pouch, but no nipples, an empty scrotum and undescended testes.

Biologists, however, have predicted that marsupials should have either a pouch or a scrotum but not both.

They suggest that there is a developmental switch where "on" gives a scrotum and "off" gives a pouch.

So Basil clearly is a paradox. Examination of other intersexes can shed light on this problem.

Normal males have an X-chromosome and a Y-chromosome in each cell while females have two X-chromosomes.

Intersexes can arise due to mistakes in early stages such that in some marsupials there is an extra

X-chromosome in each cell or a missing Y-chromosome in others.

Studies so far show that XX animals can have a pouch (with nipples) and undescended testes but no scrotum, while XO (only one X and no Y) animals

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have an empty scrotum but internal female reproductive structures.

An XO wallaby, however, was found with half a pouch (complete with nipples) on its left side and half an empty scrotum on its right.

This situation was similar to a small marsupial dunnart (XX) which also had a pouch and nipples on one side and an empty scrotum on the other.

In this case, however, the cells of the female side had two tiny additional

chromosomes while those of the male side had none.

Apparently one of the tiny chromosomes had broken off one of the X-chromosomes early in development eventually leading to an embryo consisting of a mixture, or mosaic, of cells with one normal X - and one

deficient X-chromosome, and another line of cells with two X-chromosomes plus the two tiny chromosomes.

The deficient side produced the scrotum and the latter produced the pouch.

So where does this leave Basil? We

know that his white blood cells are XY, this is consistent with the formation of testes and a scrotum.

However, there is no explanation how he could also have a pouch. We predict that the cells that developed into his pouch have an extra tiny chromosome that carried genes required for construction of the pouch.

So these cells are effectively XX for pouch genes whereas his other cells are XY. Time will tell.

Please report koala sightings on the UWS pager 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, April 15, 2009

Wombat puts up a fight

By **Dr Robert Close** and **Tristan Lee**

AT one end of Acacia Avenue, Ruse, there's the busy Junction Road, and at the other there's bushland.

The avenue is well used by marsupials and is a regular transit route for koalas.

A rare pygmy possum was once found there in the gutter.

This week there was a wombat.

As none of our team had handled wombats we rang an expert.

She advised us to worry about the teeth rather than the claws and that wombats would rip apart any bag or container that had any weakness.

On arrival we found the wombat wedged under a ute, surrounded by people awaiting the fun.

It appeared distressingly large and powerful. Fortunately a WIRES

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member with wombat experience was only minutes away.

On his arrival, we rolled the ute away and as the wombat appeared, wrapped it in a blanket aiming to direct it into a wire box trap.

However, the 20-kilogram wombat, shook off the blanket-holders and charged up Acacia Avenue pursued by residents and one of our team who, wielding the blanket like a bull-fighter's cape, tried to direct it into a position suitable for capture.

After a 50-metre sprint he succeeded and we manoeuvred the wombat into the trap.

Unfortunately, the wombat was steadily tearing the trap apart.

So jamming one of the trap's doors against a rear door of our car, and with Mick Fairs sitting on the other side of the back seat and jamming the other door shut with his body, we took off.

Mick could feel the wire door ballooning out against his body as the wombat tried to force his way out.

We wondered how we would deal with it should it break loose.

Fortunately, we arrived intact.

As the car door opened the wombat exploded out into the bush.

It was in beautiful condition, unlike the trap, and only the third reported to us from within a five-kilometre radius of Campbelltown.

Please report all koala sightings to the UWS pager 9962 9996. Don't report wombats (only kidding).

Curly gets pushed

6/5/09

By Dr Robert Close and Tristan Lee

TWO weeks ago we reported finding a wombat in Acacia Avenue not far from the Ruse pub.

This week, a young koala appeared in a front garden across the road from where we had caught the wombat and also from where a pygmy possum had once been reported to us.

The young koala was "Curly" whom we had ear tagged in September 2008 with her mother, Charlotte, in Denison Street.

Because Charlotte carries a radio-collar we found that she was at the opposite end of Acacia Avenue and it appeared, therefore, that Curly was being gently pushed into independent living.

Weighing only 3.5kg, however, Curly is very vulnerable to dog attacks.

She was also approaching busy Junction Road.

So we had to move her but did not

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want to take her far from areas that she had become familiar with as she travelled around with her mother.

We decided to release her in bushland east of Georges River Road only 200 metres or so from her mother's territory.

People living in nearby Tumut Street and Botany Place should watch out for her if she tries to return.

Another interesting call reported a dead koala lying just off the inside lane northbound on the F5 between the Ben Affleck and Menangle Bridges.

This is an area that we have long suspected that koalas would use as a corridor to move from St Helens Park via Noorumba Reserve at Rosemeadow, then Mount Sugarloaf and finally to Mt Annan Gardens.

In fact, we have a standing wager with Allan Powell, education officer at

the gardens, that koalas will eventually arrive there.

Unfortunately, the call came through shortly before dusk and as we had to drive down to the Picton overpass in order to reach the northbound lane, it was quite dark before we reached the Menangle Bridge.

We were then faced with driving in the fast lane and hoping we could see the animal with our headlights, or walking the kilometre down the median strip between bridges with a torch.

The latter proved the only reliable method, although a bit scary.

Predictably, we walked the entire distance faced with the roar and lights of the relentless traffic before we found the body beside the inner lane.

Alas, the "koala" had a tail, albeit tucked under its body: it was a fox!

Please report koala sightings to the UWS pager, 9962 9996.

Close call for old lady

13/5/09

By Dr Robert Close and Tristan Lee

PERHAPS the motorist driving down Junction Road on Saturday morning did not notice the koala crossing from Leumeah High School to the Buddhist monastery or feel the bump as the animal was hit. However, the motorist didn't stop.

Fortunately, other motorists did and one, Rob Furst, wrapped the koala in a blanket and took it to a vet at Bradbury. The vet could find no serious injury but knew from the eartags and radio-collar that she was one of our study animals.

We were then contacted and went to Rob Furst's house at Ingleburn to collect her. By this time she was apparently quite relaxed and although alert, was making no attempt to bite, scratch or escape.

The victim was Amanda, originally captured in September 1997 after crossing the same road at the same place as the recent accident had occurred. At that time she was carrying a large cub so was probably at least three years old and therefore almost 15 years old now.

We have followed her life and cubs since then and have found that she ranges through the bushland on either side of Peter Meadows Road and on the eastern side of Junction Road and its continuation, Hansens Road.

At the time of Amanda's initial capture we

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predicted that the dangers of crossing two dangerous roads were such that she would be unlikely to survive more than a year or two.

It was tempting, therefore, to move her to a safer spot, but because she had a large cub we assumed that she may have already established a territory in the area. Moving her away from familiar surroundings and into another female's territory may have been a worse option.

We decided to leave her nearby, and there she has stayed. Her recent excursion over Junction Road is the first we are aware of since her initial capture. By contrast, she regularly crosses Peter Meadows Road, and several motorists have reported her to us.

So we released her again in her favourite tree in the property of a local family that has taken an interest in her. She is an old lady now but has produced several cubs to replace herself and has brought pleasure to many.

Please report koala sightings on the koala pager 9962 9996. We will be short-staffed for the next 10 weeks so we may not be able to check all sightings - but will do our best.

GPS makes it easy

By Dr Robert Close and Tristan Lee

IN recent weeks we have put GPS collars on two of our female koalas, June and Vicki.

These new GPS collars take readings from a satellite every few hours, so can provide much more information than our usual weekly or fortnightly tracking with conventional radio collars.

Our previous radio collars required us to locate the koala on foot by following the radio signal from their collar, and then stand under the tree and obtain a GPS location using hand-held GPS.

We are now able to simply take off these new GPS collars and use a computer to download all the koalas' movements. However, we do still check all collared animals regularly to confirm they are still healthy.

We hope that the new collars will provide more information about June and Vicki's movements and interactions with each other than we have been able to see through our conventional tracking. They

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both seem to keep to a fairly well defined area, and the new collars should help us to determine if there is any relationship between their movements, i.e. do they know where the other is, and if so do they always stay a certain distance away?

Meanwhile, when putting a collar on June recently we discovered she was carrying a baby girl. She looked happy and healthy and we named her May.

■ In other news, we have recently upgraded our pager system. The new system will be more efficient and should result in far fewer missed pages or incorrect information.

However, we are short-staffed for the next month or so, so we may take longer to respond than usual. The koala sightings pager number has not changed.

Report koala sightings to the UWS pager, 9962 9996.

Rain dampens work

27/5/09

By Dr Robert Close and Tristan Lee

THIS week has been a quiet one for koala sightings, probably due to rain keeping people inside.

This week we will talk mostly about our collared females.

Amanda, appears to be doing OK after being hit by a car on Peter Meadows Road a couple of weeks ago.

She was last seen in one of her favourite properties on the corner of Peter Meadows Road and Hansens Road.

Another of our long-term collared females, Charlotte, has moved to bushland near Botany Place.

She is in territory occupied by a late koala named Shirley.

Shirley was one of our original tagged animals, first caught in 1993.

She is in a dangerous area, where several of our koalas have been hit in recent years.

We remind readers to slow down along Georges

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River Road and observe the 60 kmh speed limit, particularly at night.

June usually occupies the bush area around the Russian retirement village in Kentlyn, and that land is having a hazard-reduction program.

June and her baby, May, appear to have taken refuge from the fires in the retirement village, and are likely waiting for green shoots to appear.

■ In other news, we have recently upgraded our pager system, which will be more efficient with fewer missed pages or incorrect details.

However, we are short-staffed, so we may take longer to respond.

The koala sightings pager number has not changed.

Report dead animals you might come across as we may be able to use them for genetics work.

Report koala sightings to UWS pager, 9962 9996.

Healed falcon soars

3/6/09
By Dr Robert Close and Tristan Lee

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THIS has been another wet and quiet week for koala sightings, so this week's column will focus on news from the Wildlife Health and Conservation Centre at the Camden campus of the University of Sydney, where Tristan is doing his genetics research.

The Wildlife Centre recently rehabilitated and released a peregrine falcon.

The falcon has been at the centre for many weeks after impaling itself on a TV aerial on a house near Mount Annan Botanic Gardens. The bird's wing was punctured and became infected.

After three bouts of surgery and lots of antibiotics he was ready to be brought back into top condition. Peregrine falcons are the fastest birds in the world, and need to be at peak fitness before being released so that they can hunt down their prey which largely consists of smaller birds. Peregrine falcons have been recorded at up to 389 kmh while diving for prey.

Like Olympic athletes, peregrine falcons require

significant time and effort to get them back into hunting condition. After many weeks of regular tethered flight sessions in and around the clinic, our falcon was ready to be released.

It flew away on release and appeared to be in perfect condition.

It was a long and difficult journey but it now seems like the peregrine will fully recover and return to being the fastest bird in our skies.

The Wildlife Health and Conservation Centre receives no ongoing funding, and relies on donations and other community support to continue functioning and rehabilitating wildlife such as the peregrine falcon in this story. You can donate by calling the koala sightings pager, and we will contact you to discuss donation options. Or you can email campbelltown.koalas@gmail.com and we will reply with details regarding donations.

Report koala sightings to UWS pager, 9962 9996.

Don't take dead wood

10/6/09
By Dr Robert Close and Tristan Lee

IN THE winter months, people may be tempted to collect firewood from bushland.

Unfortunately, this destroys the habitat of a wide variety of native animals that depend on hollow logs and dead wood to survive.

Dead trees and branches in bushland or private property have much more value than many people realise. Although it may look like waste, or seem useless, dead wood is a critical part of the ecosystem.

Echidnas, possums and native rodents and many others need dead wood to survive. Dead trees are an important roosting and nesting site for bats and birds. Logs and dead wood are needed to help some species move around and disperse. The logs provide housing, shelter and a source of food. Decaying wood and bark are particularly good sites for insects. Birds and other insect-eating animals take advantage of this.

Decaying wood is also an important source of nutrients for the soil. Removing the wood removes

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this essential step in nutrient recycling. Bush rock is also important for the same reasons as dead wood - providing home and shelter for a wide variety of native species.

Just like taking dead wood and trees, taking bush rock is illegal.

If you see people stealing logs, trees, or bush rock you can report them to Campbelltown Council.

Many people already know we shouldn't steal wood from bushland, yet so many people continue to do it. Why? It's not an excuse to say you need firewood. Turn on a heater or air-conditioner - it's better for the environment than an open fire and will warm your house better as well.

The dead wood is almost certainly someone's house. Someone lives there, possibly a whole family. Think about how you would feel if an owl or an echidna stole your house.

Report koala sightings to our UWS pager, 9962 9996.

Curls gets on the move

By Robert Close and Tristan Lee

LAST weekend Curls was seen in bush near Airds, in a similar area to where she was seen the week before.

We originally caught her about a year ago near Ruse when she was still on her mother's back.

Curls might be trying to move out from home, and appears to have taken a liking to her current spot, at least for the time being.

Resident Wendy Denton also reported hearing a male koala in the area bellowing at night, so we'll have to wait and see if Curls is scared off by him as she is still young.

Our female koalas usually don't move far from where they were born, so it would not surprise us if Curls remains in the bush neighbouring the suburbs of Ruse and Airds.

The GPS collars are working well. June is remaining within the Russian retirement

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village and still has her baby, May, with her.

June has often been seen in pine and fir trees lately and we think this may be because she is trying to find warmer places to stay during winter.

Vicki seems to have settled back in Kentlyn Public School after a brief sojourn in bushland south of the school.

Unfortunately, we have recently had reports of people harassing koalas.

Injuring, harassing or otherwise interfering with native wildlife is not only an animal welfare issue but a serious offence that results in fines and imprisonment.

If you see activity which might injure or kill koalas (or any native animals) call the police.

Report koala sightings to our UWS pager, 9962 9996.

Road forms a barrier

24/6/09

By Robert Close and Tristan Lee

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THE koala pager has been quiet this week, probably because the wet weather has people indoors. It is also generally a quiet time of the year for koala movements.

Things should get busier over the next couple of months as male koalas look for breeding partners and young koalas begin to leave their mothers.

Among the few sightings we had last week was an animal on Appin Road.

A driver spotted a koala on the side of the road about 8.30pm on a Tuesday night. The koala was apparently trying to cross the road in a northerly direction but was unable to get over a concrete barrier. The kind driver pulled over and guided the koala through the concrete barriers and

across the safety. This is an interesting report, because our genetic work suggests koalas do not easily migrate across Appin Road. The various barriers along the road make matters difficult as of course does the need to dodge traffic. Koalas are regularly killed by cars along that road.

Natural migration into the Campbelltown population will bring new genes into the population and improve conservation prospects.

Thanks to the caller who saw the koala, stopped her car and helped it to cross the road and migrate into our Campbelltown population!

Report koala sightings: UWS pager, 9962 9996.

Close encounter with a mole

By Robert Close and Tristan Lee

Robert is travelling in Britain and filed this week's column from Beccles, in Suffolk.

WE HAVE been intrigued by the masses of soil dug up by moles and left in hills (or heaves as they are known) on English private lawns or in the fields.

Moles are able to shift up to 6 kilograms of soil every 20 minutes, so their activity is quite noticeable. It's more difficult to see the actual animal, however, so we were fascinated to find a freshly dead mole beside some diggings.

June is the time when mother moles drive their offspring out to find vacant territory of their own.

During this adventure, the young mole wanders about, often above ground, where it is exposed to many dangers. Judging by the amount of adjacent earthworks, vacant places are scarce and our mole must have died in the attempt to find one.

It was plump and covered in fine, velvety grey fur. The mole fitted comfortably in the palm of my hand and had tiny eyes, sharp canine teeth and front, large digging paws which resembled baseball mitts.

Some years ago, I was lucky enough to see a live

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marsupial mole that had been captured for genetic studies. It was a little smaller than the European mole and had golden rather than grey fur but had similar digging paws. Its eyes were not visible.

These animals live in Australia's inland desert country and little is known of their biology because they are so hard to find.

They are true marsupials, however, and many millions of years ago must have shared a common ancestor, that had a marsupial reproductive system, with other marsupials such as koalas, kangaroos and Tasmanian devils.

From that common ancestor, all the modern marsupials have evolved to fill a variety of ecological niches. It is fascinating that a similar ecological niche in the northern hemisphere was filled by another mammal but one with a completely different evolutionary past.

This is yet another demonstration of the power of natural selection.

Report koala sightings: UWS pager, 9962 9996.

Caring motorists save joeys

By Robert Close and Tristan Lee

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THIS has been another quiet week for koala sightings, so this week's column will focus on news from the Wildlife Health and Conservation Centre at the Camden campus of the University of Sydney, where Tristan is doing his genetics research.

The wildlife centre recently began rehabilitation of two baby wombats. Both joeys' mothers were found injured on the road and were brought into the centre at Camden by two caring motorists.

Both mothers had to be euthanised due to their road injuries; however their joeys were able to be rescued as they suffered only minor injuries.

After some initial treatment, suitable carers were found for the joeys. They are now being cared for and rehabilitated in their new temporary homes. We are pleased to be able to report that both are doing very well and are on track for release.

Recent research suggests that wombats enjoy generally high survival rates during rehabilitation and after release back into the wild. Although the common wombat is not currently threatened as a species, it is still worth making every effort to rehabilitate.

Lessons learnt from rehabilitating common wombats could be used to help the threatened Southern hairy-nosed Wombat or the critically endangered Northern Hairy-nosed Wombat.

We thank the kind motorists who checked the wombats' pouches for young.

If you hit and kill a wombat please stop and check the pouch for young. If the animal is not dead, or if you suspect a young wombat may be in the pouch, please call WIRES on 13000 WIRES or 1300 094 737.

The Wildlife Health and Conservation Centre receives no ongoing funding and relies on donations and other community support to continue functioning and rehabilitating wildlife such as the wombats in this story.

You can donate by calling the koala sightings pager, and we will contact you. Or you can email campbelltown.koalas@gmail.com and we will reply with details regarding donations.

Report koala sightings: UWS pager, 9962 9996.

Sightings on the increase

By Robert Close and Tristan Lee

WE ARE now starting to receive more sightings, and it has been a fairly busy week.

Last week a koala was hit and killed on Appin Road. We received calls and were able to go and recover the body, which we can use for our research, particularly the genetics work. Thanks to those who called in.

Appin Road is an interesting area as our genetics work suggests koalas have difficulty migrating through the Appin area and are probably not breeding with animals further south. The exact reasons for this are not certain, although the frequency of roadkills suggests traffic on Appin road may have something to do with it.

So thanks again to those callers, as this information will be used comparing the Campbelltown animals to the Southern Tablelands animals.

We'd also like to thank Linda Lynch for reporting a koala on her property on Saturday. We arrived and found out it was Tim, an old male who frequents the area around Waratah Road, and across to Peter Meadows Road. We have been tracking Tim for a couple of years now and he appears to have settled

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down around Waratah Road in recent months.

We also had a koala getting himself into trouble in Ruse this week.

From his eartags we think he is a young male named Price. He was originally found in a backyard in Sirius Road, and then about an hour later we got another call from someone saying he had just crossed Endeavour Street.

Thanks to both those callers. Price has spent most of his life around the Ruse area and has been in backyards once or twice. We will consider catching and moving them to nearby bushland if we think there is some immediate danger (such as dogs) but in this case he seemed to be heading in the right direction so we let him be.

There is a tract of bush behind Endeavour Street that we think he is headed towards. Readers around Ruse please keep an eye out for Price.

Thanks again to the many callers we've had this last week.

Report koala sightings: UWS pager, 9962 9996.

Furry ambassador missing

By Robert Close and Tristan Lee

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IT'S been another busy week for koala sightings but we would like to begin by asking for some help to locate a missing koala.

One of our female koalas, Vicki, has been living in and around Kentlyn Public School for many years. Over the years we have built up a good database of her movements as well as records of several of her babies.

In the past few days we have had some technical issues with her radio collar and we have now lost the signal altogether. Vicki is a very important animal for our research and occupying the land she does within Kentlyn Public School has proven to be a successful conservation ambassador for pupils attending that school.

We ask nearby residents and anyone walking around Kentlyn Public School and nearby areas to watch out for Vicki and please report sightings on the koala sightings phone number at the bottom of

this column. Vicki is also often seen along Old Kent Road near Ruse, so please watch out in those areas, too.

SEVERAL residents reported one of our male koalas in bush next to St Helens Park. Robert Zollia, a long-time koala spotter, was the first to call after seeing Cramer high up in a tree across the road from his house. Robert told us this tree in particular is one of Cramer's favourites, as he's been seen in the same tree many times over the last few years.

Interestingly, we had not had any reports of Cramer for about six months. It seems he had a holiday over winter somewhere out of the public's eye but has returned to his regular territory in St Helens Park.

Report koala sightings: UWS pager, 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, July 29, 2009

Note:

No column published on this date

Vicki's still missing

5/8/09

By Robert Close and Tristan Lee

WE'RE still struggling to find Vicki, our missing female koala with a failing radio collar.

We do occasionally obtain an intermittent radio signal but it's weak and difficult to work out a direction.

The signal generally leads us to Kentlyn Public School and the surrounding areas, particularly heading south along Georges River Road.

We ask residents and walkers in this area to watch out for a koala and call us if you see one.

Vicki is a very important animal for our research and, occupying the land she does within Kentlyn Public School, has proved to be a successful conservation ambassador for the pupils there.

Over the years we have built up a good database of her movements as well as records of several of her babies.

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■ We also have exciting news from much further south. From time to time we're involved in a koala program at Tarlo River National Park, near Marulan. We have recently found out a young female koala we're tracking in the park has a joey on her back.

This is great news because it would seem to confirm our hunch that there's a population of koalas at Tarlo River.

Until recently we were not sure because no other koalas - except our two radio-collared animals - had been seen for around 100 years but if our female is breeding it gives us hope that there's still a population down there, possibly much bigger than anyone thought.

Report koala sightings: UWS pager, 9962 9996.

Leafy suburbia suits an animal's lifestyle

By Robert Close and Tristan Lee

IT'S been a big week for the koalas that live on the edge of the bush and the suburbs.

First there was Price, a male koala we first tagged in a child-care centre in July last year.

Since then he's roamed across Ruse and last week was in Cook Reserve next to Junction Road.

We moved him away from the busy road and found that he now weighs 10 kilograms, a weight that indicates that he's ready to settle down.

In fact, we suspect that he has chosen suburban Ruse as his territory.

This area includes several small reserves and many gardens that support excellent koala food trees. Provided that Price can avoid the dogs and cars, he should live well.

In Denison Street, within Price's suburban territory, we found Susan, also first captured in July last year. This time she had a young cub on her back and was in a garden tree that has been well-used by koalas in the past.

Another tagged koala appeared in St Helens Park Drive, near Spring Creek, late one evening.

Passersby, worried that he was in danger, took him to Andrew Hill at Bradbury Vets who checked him over.

The koala turned out to be Amica, a young male

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we caught near Woodland Road Public School in November last year. Now weighing in at 8.4 kilograms, and like all young males in August, he is probably off on his adventures and we are likely to hear from him again in coming weeks.

Probably more settled is Junior, who appeared last week in O'Hares Road, Wedderburn.

Originally captured with his mother Chloe at Airds in March 2003, he is now seven-years-old and has probably settled down after hiking seven kilometres from his mother's territory.

All these sightings are consistent with our view that in several areas near Campbelltown, koalas are now occupying most of the available koala habitat and young animals are being forced into built-up areas to either settle or to use as a movement corridor. We have now decided that we will move koalas only if they are in great danger.

Koalas like Price have shown that they can cope with the pitfalls of suburban living and are ready to share our parks and gardens.

Our duty in return is to drive carefully and be attuned to any unusual dog-barking.

Report koala sightings: UWS pager, 9962 9996.

Many lucky escapes

By Robert Close and Tristan Lee

LAST week when we moved the 10-kilogram male koala, Price, from the danger of Junction Road, to the safety of the bush, we resolved that thereafter he would have to fend for himself.

A few days later, Price left the bush again and was reported crossing Junction Road into the Leumeah High School grounds, and later near the corner of Corunna Avenue and Junction Road. Abiding by our new rules, we checked him over but left him where he was. The next few days were nerve-racking as we dreaded the call to report a dog attack or a road fatality. Fortunately there has been no such call to date and we suspect that Price has now made it to the relative safety of Smith's Creek Reserve.

At the same time, at the southern end of Junction Road, another koala was perhaps also headed for Smith's Creek via the popular dispersal route of Acacia Avenue.

This was our radio-collared Charlotte, who has lived for the past four years in the bushland at the Darling Road end of Acacia Avenue. She was running along the road and was rescued by local resident, Greg, who has helped us on many

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occasions and is well acquainted with Charlotte and her movements. He wrapped her up in a blanket and released her in one of her favourite trees. Till now, Charlotte had not ventured past the Catholic church in Acacia Avenue.

Another call came from WIRES to report a dog attack on a koala at Wills Road, Long Point. Although grabbed by the dog on the rump, the koala was able to escape and climb a large tree.

We ask local residents to keep an eye out for the koala as its injuries may need treatment. Not so fortunate was the first koala reported to us from Glenorie on the northern side of Sydney.

This animal was also attacked by dogs, but died of its wounds.

A happier report, of June and her new cub, came to us from the retirement village at Kentlyn.

June is the daughter of Shirley, and mother of Vicki, Shy and several others, and is now nine years old and still going strong.

Report koala sightings: UWS pager, 9962 9996

Help them up in life

26/8/09

By **Robert Close** and **Tristan Lee**

AUGUST is the month that young koalas set off on their travels.

Whether they are pushed into it by their mothers or older males, or are driven by some inner urge we are not sure - but suspect the latter.

Young males are certainly on the move around Campbelltown. One tried to cross Heathcote Road, near Sandy Point, and is now in the Wildlife Health and Conservation Centre at Camden nursing a broken arm and head injuries.

Another, at risk, was reported crossing Appin Road in the middle of the spotted-gum forest.

We don't get many sightings from Long Point so it was good to receive a call from Wills Road, while nearby at Ingleburn, an unusual story was unfolding.

There, at 39 Lancia Road, on August 21, a koala had been reported scratching at the back door.

This animal was subsequently reported by a local resident, Jackie, two days later from 24 Lancia Road, again scratching at the back door.

This time, however, it climbed on to the roof and was having difficulty finding an escape. So Jackie set up a plank against the roof and at 2am the koala descended to find a party in progress at a nearby house with consequent road traffic.

MAC KOALA

Jackie was worried about his safety so manoeuvred the koala into a cat carry cage then called us at 7am. We arrived to find a placid two-year-old male weighing 5.5 kilograms and looking in excellent condition.

We fitted him out with ear tags, named him "Lance", took him up to 39 Lancia Road to meet his earlier guests, then released him in the nearest suitable habitat beside Myrtle Creek.

No doubt we'll hear from Lance again.

Future sightings will provide us with information on directions and rates of dispersal.

A few days earlier, another young koala was reported scratching at the door of a house that backs onto Cook Reserve, Ruse. Unfortunately, it disappeared 10 minutes before we arrived.

We suspect that this door-scratching is caused by the young koalas being unfamiliar with the terrain and become trapped by high fences designed to keep pets inside. Once trapped they try every means of escape. Residents near bushland should be aware of this and provide some form of climbing escape from their yards and swimming pools.

Report koala sightings: UWS pager, 9962 9996.

Lucky encounter

By Robert Close and Tristan Lee

MAC KOALA

WHEN they arrived at their work compound in Technology Drive, Appin, at 6am last Saturday, workers were surprised to find a koala sitting atop a pile of equipment like a king upon his throne.

He was so quiet that he allowed the workers to pat him. They were worried, however, that this passivity might indicate an injury so they called Wollondilly WIRES, who in turn called the UWS koala pager and we were soon on the site.

We gently transferred the koala, named "Lucky" by the workers, from his throne to a bag and inspected, weighed and ear-tagged him.

He looked to be in fine condition and we could see no signs of injury or ill-health. We suspect that Lucky had climbed over the compound's barwire-topped chain link fence early in the evening and became trapped.

He then spent the night searching in vain for food in the compound or a way of escape. He was probably so exhausted and confused that after finally finding a comfortable position he stayed put.

In this sense he certainly was lucky because there were many other places in the large compound from where he would have been very difficult to extricate. So he appeared quite relaxed when we released him into nearby bushland.

We have received more sightings from Appin and know from Tristan's DNA studies that koalas dispersing south from the Campbelltown breeding areas meet koalas dispersing north from breeding areas near Wilton and the Cataract River catchment in this region.

Lucky, who weighs 8.8kg, would certainly be in dispersal phase.

Tristan will be able to tell us whether Lucky comes from the southern or northern groups. However, we are also interested to receive reports of female koalas with young from Appin.

■ Dedicated readers of this column will be pleased to know that Price has recrossed Junction Road and is back on Darling Avenue after crossing Ruse and having spent time sitting on a fence overlooking the yard of a German shepherd.

Surprisingly, he also let people approach and touch him. We don't encourage this.

Price weighs 10kg and is well equipped with tooth and claw. He may look cuddly but is potentially dangerous. A bite to the finger or a scratch to the face could be serious.

Report koala sightings: UWS pager, 9962 9996.

Koalas spreading

Many of us can remember referring to the "Wedderburn koalas" back in the 1980s. Isn't it great to see them expanding so widely now, all over Campbelltown and down past Appin. Check out all the latest news in our Mac Koala column on page 28.

219109 mlt

Roadkill a mystery

09/09/09

By Robert Close and Tristan Lee

MAC KOALA

LAST week, we asked for people to report sightings of koalas, especially females with young, from the Appin area. We received two reports, both from the spotted-gum forest beside Appin Road.

One was roadkill, the other was of a koala that successfully crossed the road.

The former was reported by a motorist who was unable at the time to stop and verify the roadkill was actually a koala. When he returned later, the body was gone. If any reader can shed light on what happened, please contact us.

The same motorist also reported a dead echidna at about the same location. These records support our view of the importance of the bushland corridor, of which the spotted-gum forest is a part, that links the Nepean and Georges rivers' catchments.

The gap here, between Sydney's two largest rivers, is only 4 kilometres and allows animals to move from one catchment to the other and thereby across the Sydney basin.

Drastic clearing of a part of this corridor, as reported in last week's *Advertiser*, will be deplored by all who value our natural heritage.

Mostly it is young male koalas that disperse but occasionally a young female will move as well.

Back in May, we reported that Charlotte's 2008 cub, Curls, appeared to be leaving her mother's territory beside Darling Avenue, Ruse. Curls turned up last week in Peppin Crescent, Airds.

A few days later, on Saturday, however, she appeared in the small park at the junction of Greengate Road and Riverside Drive, where residents assisted us in her capture.

Curls appeared in fine condition after her trek through Airds but to be safe we released her in the adjacent Georges River bushland which we suspect will already be occupied by a resident female who is likely to push Curls away. This process is likely to be repeated until Curls finds a suitable, unoccupied site that has the optimal array of trees for food, shelter and protection from predators and weather.

This could be a difficult task and Curls may be pushed back into the suburbs.

Whatever the case, every time she is seen and reported she adds to our knowledge of how koalas colonise new areas and cope with suburban hazards. Let's hope we hear from Curls again.

Report koala sightings: UWS pager, 9962 9996.

Mating season calls

By Robert Close and Tristan Lee

16/9/09

MAC KOALA

EIGHT calls came in on the UWS pager last weekend; probably a record!

One call, from Fullerton Crescent, St Helen's Park, reported a tagged koala which turned out to be Brittany, the daughter of Courtney, one of our radio-collared females whom we have been tracking in the bush beside Spring Creek since March 2003.

We tagged Brittany in March 2003 when she was still on her mother's back.

She was seen regularly near her mother during 2004 but since then she's only emerged from the bush on November 20, 2005, and on September 22 in both 2006 and 2007.

We didn't see her last year but suspect she has set up her own territory beside her mother's in Spring Creek and these annual appearances are associated with finding a male.

Our resident male, Cramer, likes to bellow from the tall trees beside adjacent Ironside Avenue which give him a good position overlooking Spring Creek.

In fact, the original caller, Melissa, rang back the following day to report that Brittany was with a male.

Melissa's house backs onto the bush on Fullerton

Circuit and she and her family often hear the males calling. Her sons refer to the incredible noise as "the bunyips".

Brittany's territory is also adjacent to a 30ha proposed development site for 300 houses.

Another interesting call was from Carrington Circuit, Leumeah, where a young koala has been seen on three days.

This street backs onto Smiths Creek Reserve which has never held a resident female, as far as we know.

However, we speculated in recent columns that the movements of the large male, Price, across Junction Road might be in response to a female in Smiths Creek Reserve.

If so, it is further evidence our koalas are venturing deeper into the suburbs in search of unoccupied territory.

■ Don't miss the Environmental Heritage lecture at Campbelltown Art Centre, September 23, at 7.30pm. Professor David Phalen, of the Wildlife Health and Conservation Centre, will speak.

Report koala sightings: UWS pager, 9962 9996.

Close call for Carrie

23/9/09

By Robert Close and Tristan Lee

MAC KOALA

LAST week we reported a koala's appearance in Carrington Circuit near Smiths Creek Reserve.

On Monday it was reported again and several callers were worried about its safety.

We investigated and found it in a low fork of a large tree overlooking a busy roundabout.

We had only one chance of flagging it down; if it pushed past our flags it could climb far out of reach. And that is exactly what happened.

So we packed up our gear and were preparing to leave when help arrived from an unexpected quarter.

Flocks of cockatoos, currawongs and magpies arrived in consecutive waves to screech, flap and peck at the innocent koala which responded by climbing down to its original fork.

So we unpacked our gear and tried again.

This time it climbed down in response to our flags rather than face the feathered attack above. So we soon had a two year-old female in the bag.

We named her "Carrie", weighed, ear-tagged and measured her and inspected her pouch which was empty.

Then, after residents had taken plenty of photographs, we released her in the nearby Smiths Creek Reserve.

The attacks by the birds indicated they were unfamiliar with koalas and evidently thought Carrie was a predator. So we are fairly sure that Carrie has wandered some distance from her mother's territory.

Meanwhile at St Helens Park, where, after two years, Brittany had reappeared last week beside the territory of her mother, Courtney, there was some turmoil.

Courtney left the Spring Creek bushland and crossed Woodland Road and we tracked her to Pinnaroo Crescent.

That evening as she re-crossed Woodland Road heading back to Spring Creek she was hit by a car.

The motorist immediately took her to the Wildlife Health and Conservation Centre at Camden where Professor David Phalen and his team found her injuries were minor. She has now been released beside Spring Creek.

This was just one of the many occasions that David has treated injured koalas.

Hear him talk tonight at the Campbelltown Art Centre, tonight (September 23) at 7.30pm.

Report koala sightings: UWS pager, 9962 9996.

Vicki's now retired

By Robert Close and Tristan Lee

THIS has been another busy week on the koala pager.

After releasing Courtney back into her territory at St Helens Park, we had two more calls about koalas finding themselves in trouble in the area.

Balook, a young male originally found and tagged in Balook Crescent, Bradbury, was found sitting on the side of the road near St Helens Park on Monday morning.

A WIRES carer picked him up and held him overnight before bringing him to the Wildlife Centre at Camden.

Balook appears to be fortunate as we can't find any injuries. He is in good health and eating well.

We are not sure why he was sitting on the road but it could have been due to a minor collision with a vehicle. Apart from some mild dehydration and slow movement he appeared fine.

We also recently had a potentially disastrous incident during a catch to remove a collar.

One of our team suffered a bad scratch to their face which came very close to the eye.

This incident reminded us how dangerous koala research can be, and how capable koalas are of inflicting serious injury through their claws, teeth and brute strength.

MAC KOALA

Despite their cute and cuddly "teddy bear" image koalas are still strong, wild animals.

We would also like to thank staff at the Campbelltown medical centre for attending to the injury so quickly.

Finally, Vicki - the resident female koala in Kentlyn Public School - has had her collar removed.

After several weeks of being unable to find Vicki due to a poorly functioning collar we struck a good day and managed to find her and remove the collar.

We did not put a replacement collar on so Vicki is now "free" after many years of making a great contribution to our research.

We have followed Vicki regularly, looked after her and rescued her from trouble.

She, in return, gave us invaluable information on her movements and home range through following her offspring.

Vicki can now enjoy her retirement in and around the grounds of Kentlyn Public School.

Don't forget to thank Vicki for her positive contribution to Campbelltown koala conservation next time you see her.

Report koala sightings: UWS pager, 9962 9996.

MAC KOALA

Lads instructed about proper care for wildlife

By Robert Close

7/10/09

A young koala sitting in the fork of a tree generally arouses the sympathy and delight of humans.

For a small group of 10-year-old boys this week, however, the sight allegedly compelled at least one of them to throw stones.

Anxious callers had rung to warn us, and when we arrived we found the koala well within stoning height and with the boys looking angelic beneath it.

We told the boys that if they saw anyone hurting animals they must tell their parents immediately.

We also explained that the penalties for cruelty to any animal were fines up to \$22,000 and imprisonment of up to five years.

In addition, there were penalties for harm to a vulnerable species of \$55,000 and/or one year of imprisonment.

Most of the boys departed and the koala climbed to a safer height.

On a happier note, we found our old female, June, in a tree suitable for capturing her and her large cub, Jemima.

We had fitted her with a fancy and expensive radio-collar, which used satellite technology to record and store her position every eight hours.

After six months of recording movements, we had planned to locate her by tracking the signal from a small transmitter mounted on the collar, capture her and retrieve stored information.

Unfortunately, her transmitter (and also those of three other koalas) failed and we lost contact until last Saturday.



Lost then found: Alice Fairs and Mother Maria with Jemima, found in the grounds of the Holy Cross Russian Orthodox Home for the Aged. **Picture:** Wendy Fairs

We found June and her large cub in the grounds of the Holy Cross Russian Orthodox Home for the Aged where she spends most of her time.

We set up a barrier fence, made of Coreflute, around the tree with a gap leading into a large wire cage-trap.

At 9pm, June, with Jemima on her back, climbed down and entered the trap.

Watched by many residents our team replaced the malfunctioning collar with a more basic model.

We also weighed June and the cub (8.5 and 3.5kg respectively) and fitted Jemima with coloured eartags.

We released the pair beneath a tree and watched as June climbed it with apparent ease despite having her cub, almost half her weight, clinging to her back.

We suspect, however, that Jemima will soon be barred from back travel.

■ **Report koala sightings on the UWS koala pager 9962 9996.**

Campbelltown Macarthur Advertiser, Wednesday, October 14, 2009

Note:

No column published on this date

Price was just right

By Dr Robert Close and Tristan Lee

A FEW weeks ago we were contacted by Blake Draper, a student from Mary Immaculate Parish Primary School, Eagle Vale, who wanted to raise money for koala conservation by running a stall at the school's annual spring fete (this Saturday, 9am to 3pm).

We suggested that the best way that Blake could help local koalas was to support the Wildlife Health and Conservation Centre at Camden. This centre provides veterinary treatment for native animals and has treated several of our ear-tagged animals.

The centre has to raise its own funding and this is no easy task. So Blake's interest in the wellbeing of local koalas is serving a great cause. Please come to the fete and contribute.

■ Several members of the community have seen and reported more than one koala and some of these sightings have led to the koala being captured and ear-tagged.

On such occasions, the original spotter earns the right to name the koala. One multi-koala spotter is Marion Price who spotted and named Price, a male koala that has been moving across suburban Ruse for the past couple of years.

Price is a very apt name for a koala because the first written account of a koala was in a diary produced by a young man called John Price in 1798, during his journey into the region south-west of Sydney. After reporting the shooting of the first "pheasant" or lyrebird, Price then referred to an animal called the "Whom-batt".

Next, he reported the presence of koalas: "There is another animal which the natives call a cullawine, which much resembles the Sloths in America."

MAC KOALA

These three important observations were apparently made near Bargo, on January 26.

■ We had a recent sighting of Balook, a koala that we first found and ear-tagged in Balook Crescent, Bradbury, last year.

He'd turned up again on the ground at St Helens Park, a little dehydrated but otherwise apparently undamaged and spent two weeks under observation in the Camden Wildlife Health and Conservation Centre before we released him last week back at Spring Creek.

Balook's behaviour at that time was interesting. We'd placed him at the base of a healthy grey gum, the koalas' preferred local food tree. He turned away from it, however, and moved from tree to tree giving each a quick sniff. We would love to know what he was detecting with each sniff.

This is an intriguing facet of koala biology that we know very little about. Was he able to determine the food quality of each tree? Or perhaps he was able to tell whether a dominant male had marked the tree with the special concoction of 30 aromatic compounds that males produce from a gland in the middle of their white chests.

We've since had two reports of him from Ironside Avenue. On both occasions he was walking beside the road in broad daylight, apparently unconcerned about his human observers who encouraged him to seek safety in the adjoining bushland. This tendency to walk about during the day is unusual and may indicate an undiagnosed medical problem.

Please report koala sightings on the UWS pager, 9962 9996.

Tests to find father

28/10/09

By Dr Robert Close and Tristan Lee

MAC KOALA

It was a sad moment farewelling Jeremy, after three years of radio-tracking, knowing that we will be unlikely to see him again.

Readers of this column will recall that in 2006 we captured two young Campbelltown koalas, Jeremy and Flossie, and took them 100 kilometres south to Tarlo River National Park. Here we fitted them with radio-collars and released them hoping that they would survive and breed, thereby showing that the park still contained suitable habitat for koalas.

Previously koalas had not been sighted there since the 1970s. Unfortunately, Flossie's radio-collar failed after only six weeks.

Jeremy soldiered on, however, and moved 14 kilometres north through some very rugged country. His repeated behaviour was to settle down in a fertile gully during autumn and winter then resume his travels in spring.

Last October we brought him a replacement female, Melissa, and released her in Jeremy's favourite valley. Melissa immediately moved about 500 metres away and has remained there ever since. Jeremy settled down too but we never saw them closer than 200 metres - so it was with great pleasure that the radio-trackers recently reported a cub appearing with Melissa a few months ago.

Jeremy, however, cannot yet claim to be the father. Although Melissa was young when she was released, with no joey in her pouch, she may have been carrying an embryo fathered by another Campbelltown male. Alternatively the father was a local Tarlo male.

Last week we visited Tarlo to inspect the cub and fit it with distinctive ear tags. It was a 1.2 kilogram male that we named Sam.

Tristan will now take the piece of ear that we removed while fitting the ear tags and examine the DNA to help us solve the paternity question. We'll report the findings in a few weeks.

We changed Melissa's collar and will radio-track her for at least another year. We want to see if Sam survives to weaning and whether Melissa produces another cub next year - and, if so, to which father.

Jeremy has now left his valley and has moved about 500 metres beyond Melissa. We removed his collar because he is very difficult to track and he has already supplied us with all the information that we'd expected. We hope, however, that local people may see him and report his ear tag colours.

Please report koala sightings on the UWS pager, 9962 9996.

Male behaviour

By Dr Robert Close and Tristan Lee

LAST week we farewelled Jeremy at Tarto River National Park after removing his radio collar.

This week we did the same to Tim, who lives in the bush beside Peter Meadows Road. Tim has been wearing an expensive GPS collar that plotted his position from satellites each few hours and recorded it in the collar. We then had to find him through a signal transmitted from the same collar so we could download the stored information.

Unfortunately, the transmitter failed and we lost contact with Tim, thereby losing the expensive collar and the precious data.

But to our great relief Kieran, from our research team, eventually found him after scouring Tim's favourite bushland areas. Tristan will now use the recovered collar to plot Tim's daily and nightly activities on a map and we'll discover much new information on male koala behaviour.

Tim featured in a previous column when he sheltered from hot weather by hiding in caves. Such behaviour may block contact with the satellites and so reduce the collar's ability to record its locality and thus indirectly measure time spent in caves.

■ A sadder farewell was for Brittany whom we had taken to the Wildlife Health and Conservation Centre at Camden for a check-up after she had

MAC KOALA

been reported acting strangely at Ironside Avenue, St Helens Park. We had first ear-tagged her in Spring Creek in March 2003 when she was still with her mother, Courtney. She would have been a year old then, so would be over seven now. Unfortunately, she was diagnosed with advanced leukaemia and had to be put down.

Leukaemia is one of the illnesses associated with a strange retrovirus found in koalas. Tristan has shown that Campbelltown koalas carry the viral DNA but so far we've seen no sign of its effects. In fact, our koalas, particularly the females, have been remarkably healthy and long-lived. It's too early yet to attribute Brittany's illness with the virus. Much money and research is needed to investigate this phenomenon.

■ Blake Draper and his five helpers, with the assistance of Mac the Koala in the *Advertiser*, did their bit last week to support the conservation of koalas by raising \$346 at the Mary Immaculate Primary School fete at Eagle Vale. Congratulations to them. It's great to see their concern converted into action.

Please report koala sightings on the UWS pager: 9962 9996.

Mind our friends' furry ears

By Dr Robert Close and Tristan Lee

DIRK, from "Dirk's backyard" called from Wills Road, Long Point, to report a koala with a yellow tag in its left ear.

It was unfortunate that he could not see what colour was in the right: we need the combination of colours to identify the individual koala.

Alternatively, we can identify the koala by the unique number stamped on each tag.

To read this number, however, normally requires that the animal be captured, although sometimes we can read the number from photographs.

Dirk emailed us some photographs (at right) but the right tag was obscured by the hairiness of the ear, while the angle of the left tag just prevented us from reading the number. We would like all residents at Long Point to check their gardens for this koala and see if they can note or photograph the tags.

We've predicted that sightings will increase from the Long Point and Macquarie Fields area because the surviving bushland appears to be good habitat.

MAC KOALA

We weren't surprised, then, to receive a call on the same day as the Wills Road sighting to say that a koala had been sighted just north of Long Point off Knotwood Avenue where its bellowing had revealed its location.

Unfortunately, it was too high to see whether it was tagged.

Meanwhile at Bobuck Place, St Helens Park, a mother and baby were delighting residents. The mother was tagged and we could clearly see the left tag, and thought we could see a bit of purple in the right.

This combination could only have been that of Helen, tagged at St Helens Park as an adult in January 2002, and not reported in the intervening period. However, we need to verify that sighting, so we ask for people living near Larapinta Crescent to watch out for koalas and focus on and photograph the ears.

At this time of year we change the radio-collars of the four female koalas whose lives we have been following. This week it was Charlotte's turn. We found her in a garden off



Georges River Road and found that she had a mouse-sized joey in her pouch.

She did not breed last year, so it was good to see that she was back in business. Her previous cub from 2007 was Curls, whose presence we've been plotting from calls to the UWS koala pager across Airds in recent weeks.

Please report koala sightings on the UWS pager 9962 9996.

Our colonies do offer hope

By Dr Robert Close and Tristan Lee

MAC KOALA

LAST week an item appeared in Sydney's media suggesting the koala population in NSW could be as low as 8000.

This report would probably confuse readers of our column who are used to hearing the koala population around Campbelltown is thriving.

So let's look at this question.

First the bad news. Koala habitat is being damaged by housing, roads and agriculture, while catchments are being degraded by mining and urban spread.

Koalas are also affected by the disease chlamydia and a recently discovered retrovirus.

The corridors of vegetation that allow koalas to move from area to area and replenish populations are continually being eroded by human activities.

Add to this the potentially serious affects of climate change and we can see koala populations are under severe pressure.

The good news from Campbelltown is that koala populations can recover. We know koalas were common in the 1920s then became scarce, probably through hunting, fire and disease.

Then, after 60 years or so, koalas started appearing again and are now more common, though still at relatively low density. We suspect the current density of one koala per 10 to 20 hectares is optimal for koala health and breeding capacity.

Certainly our female koalas are living to age 14 or 15 and many are breeding two years out of three from age 2.

Many of their young are surviving and some settle beside their mothers, while others move to expand the population into vacant habitat.

In addition, young males are crossing from the Georges River catchment into the Nepean and Woronora catchments.

We also know there are scattered koala colonies south of Campbelltown in the Holsworthy bushland, Wilton, Avon Dam area, Bargo, Hilltop, Mittagong, Robinson, and Canyonleigh, while to the north there is a population at Kurrajong and Bilpin and another in Yengo National Park.

Even if koala densities are only one per 100ha, then the total number in this large area is considerable and makes the total NSW estimate of 8000 seem rather low. If all these colonies expand in the Campbelltown manner then there is hope. The big proviso, however, is that surviving bushland is protected and that vegetated corridors be maintained to allow flourishing populations to replenish struggling ones.

Please report koala sightings to the UWS pager: 9962 9996.

Aces report their sightings

By **Dr Robert Close and Tristan Lee**

IN the week since Monday, November 16, there have been eight calls to the koala pager to report sightings. In itself, that number is not so unusual except that six of them were from one person, reporting five koalas.

The ace spotter is Julie Wasson, formerly a resident of Wedderburn, who over the past few years has reported dozens of koalas most of which were in trees beside the gorge on Wedderburn Road or on the road itself. This feat is astounding given that there are many people living in Wedderburn who have never spotted a koala.

Of Julie's recent sightings, four were also from the gorge and included single koalas on either side of the causeway, and a mother and her almost independent cub, whom Julie and her family watched climbing a tree one after the other.

But the really amazing sightings were in the garden of her new property in St Helens Park, where a koala has been living for the past few days.

The koala was, until Saturday, always too high to see if it had ear-tags. Fortunately, the Wasson family eventually noticed it on the ground in the process of changing trees and was able to record the colour of each tag. These colours identified the koala as "Curls", daughter of radio-collared

MAC KOALA

Charlotte who lives beside Georges River Road and Darling Avenue, Kentlyn.

So Curls has now moved past Airds where she was spotted several times. If she continues in the same direction she will soon be in Wedderburn Gorge. It is unlikely that Curls will find an empty place to live there because we know that the area is well stocked with breeding females.

She may follow Wedderburn Road onto the plateau. Another young koala took this path recently and was spotted on Wedderburn Road and later on Minerva Road. Alternatively, she may move through St Helens Park to Appin Road and points south. A young male recently took that dangerous route and its body was reported to us on Friday, November 13 after being hit by a car.

Whatever Curls' fate, we hope her progress will continue to be reported to us.

This dispersal of a female cub a considerable distance from its mother is a valuable piece of information to fit into our picture of how koala colonies expand.

Please report koala sightings to the UWS pager: 9962 9996.

Boys find sprawled oldies

By Dr Robert Close and Tristan Lee

2/12/09

MAC KOALA

AFTER Julie Wasson's bag of koala sightings last week, another of our regular spotters, Ray Whitmore, also did well last Friday on the fire trail that runs from Old Kent Road to Coral Avenue.

He first spotted a mother with a large cub, then, about 200 metres away, he found a male sprawled out on a shady branch. All three appeared to be untagged, so we would have liked to catch and tag all of them. Ray would have liked that too, because despite his many sightings, none has led to the capture of an untagged animal. So he's been frustrated in his ambition to name a new koala.

Unfortunately we didn't have a catching team available and, in addition, the weather was so hot that unless we were very speedy with the catch, the animals might have over-heated.

The following morning, however, Mayor Aaron Rule and his godsons, Will and Rich Thackeray, came out to help. We searched the grove of grey gums where the mother and cub had been the previous day, but in vain. Several of the nearby trees had koala faecal pellets beneath them. These pellets came in two sizes, medium and small, and in two conditions, fresh ("steamers") and old.

This indicated that the mother and cub had spent

several days in that particular patch of grey gums. No doubt Ray will keep his eye on the grove.

We'd also been directed to the approximate area of another koala about 200 metres further up the fire trail, by Kieran, a member of our research team.

After several minutes of searching, the boys spotted an old koala also sprawled along a low branch. Her eartags identified her as Georgie who had been tagged nearby with her mother, Lyn, way back in August 1999.

She had not been recorded for some time, so it was useful information to add to our data on female longevity and home-range selection.

We finished the morning by radio-tracking Amanda, our oldest surviving female who was caught as an adult in September 1997. She must be at least 14 years old and has lived all that time on either side of Peter Meadows Road. She too was sprawled out in a shady tree, low enough for the boys to take some good photographs and almost close enough to touch.

Please report koala sightings to the UWS pager: 9962 9996.

A case history of injuries

By Dr Robert Close and Tristan Lee

MAC KOALA

THE pager call came in at 9.30pm reporting a koala at the Woodlands Road service station in St Helens Park.

We weren't surprised, because Curls, the young female whose travels we have been following across Airds from Ruse, had been spotted recently nearby.

Sure enough, the koala was tagged and the colours identified her as Curls. The several people who had gathered to watch the koala were keen that we should move her to a safer environment.

We explained that we no longer move koalas unless they are in immediate danger or are injured. They have to learn to live with humans, just as we must adjust to them by careful driving and responsible dog ownership.

Nevertheless, when we left Curls there in the car park, we were worried that something would happen to her. So next morning when a call came in reporting a koala with a damaged eye at Rosemeadow, we immediately assumed it was Curls. To our surprise, however, we identified the koala from its ear tags as Amica.

Amica was a three-year-old male we had last seen in Fullerton Crescent a year ago when we released him after he'd recovered from an injury incurred, ironically, near Woodlands Road.

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Amica had damaged a toe so badly that it had to be amputated. Fortunately we'd been able to take him to the marvellous Wildlife Health and Conservation Centre of Sydney University at Camden, where he recovered.

But now the koala was directly opposite Ambarvale High School in a small tree beside the footpath, and clearly visible. The road was full of traffic and the footpath was busy with students, yet not a single person spotted him.

Watched by a biology class from the school, we captured Amica when there was less traffic. The students looked on enthralled as we weighed him and made a preliminary inspection.

One eye looked badly damaged, and there were other wounds on his face, perhaps from a dog attack, or from fighting another koala. He needed veterinary care, so we took him back to Camden where his wounds were treated and he was given pain relief. His previously injured toe was again torn to the bone and the eye was ruptured, so it will be another long road to recovery and costly to the centre in terms of labour and medicines.

Please report koala sightings to the UWS pager: 9962 9996.

Curly makes her great escape

By Dr Robert Close and Tristan Lee

16/12/09

MAC KOALA

THE adventures of Curly, the young female koala from Ruse, continued this week.

In our last column (written on Sunday) we had left her in a small tree beside the Quick Stop shops and service station in Woodlands Road, St Helens Park.

We decided she would have to learn to cope by herself with suburbia.

But that decision did not stop us worrying that the next call would be to report that she had come to grief crossing Woodlands Road while heading to the safety of Spring Creek.

On Tuesday came the report that Curly was walking up the drive into the Jehovah's Witness centre on the western side of the shops.

On checking, we found her in a small tree in the car park. If we had caught and moved her then, it would have saved us a lot of trouble.

But we stuck to our plan and left her there.

Next day the pager rang all day to report her movements between the Quick Stop shops and Woodlands Primary School.

For many of the dozens that gathered to watch her it was their first sighting of a koala in the wild.

Despite the concerns of many of the audience, we stuck to our principle of non-intervention and,

on Thursday, she was back in a tree on the eastern side of the shops.

On Friday and Saturday there were no calls and we had begun to hope she had successfully crossed the road. No such luck!

At 1.30 am on Sunday morning the pager rang to report Curly trying to cross Woodlands Road.

We'd had enough! We resolved then to relax our rule and help her to safety.

Curly, however, had the last laugh. When we arrived at Woodlands Road, it was dark and empty with no sign of a small, grey koala.

We hope this time she made the crossing safely and is now in the Spring Creek bushland.

This bushland is the home of Courtney, one of our radio-collared females, who may object to Curly.

It may not be a coincidence that she was in the closest bushland to the Quick Stop during Curly's stay there.

Whatever the case, we hope to discover more about Curly's travels on her long trek from Ruse.

Please report koala sightings to the UWS pager: 9962 9996.

Furry and flying: a rare beauty emerges

23/12/09

By Dr Robert Close and Tristan Lee

RAY Whitmore walks regularly along some of the many fire trails of Kentlyn and frequently calls us to report sightings of koalas. One of his calls, however, was to report a strange mammal that had caught itself on a barbed-wire fence.

The unusual possum-like animal was the size of a cat but with a smaller head, larger ears and with a fur-covered membrane that stretched from its elbows to its knees. This broad expanse of skin stretches out like a kite and allows the animal to glide up to 100 metres from tree to tree. We identified the animal as a greater glider, *Petauroides volans*, and this was only the second one that we have seen in 20 years of studying the Campbelltown bushland.

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Just to check how rare these animals are here, we checked the National Parks and Wildlife Service species database at wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas.watlas.jsp.

Only two records have been listed from the Campbelltown region (both at Wedderburn) and one of them was ours. So Ray's new record is an important one.

Greater gliders are beautiful animals. The tail is long and bushy and the coat is rich and thick and comes in a variety of colours ranging from dark grey to brown to cream above and whitish below. Like the koalas, the diet is mainly eucalyptus leaves and

there is a large caecum, a large digestive sac between the intestine and the lower bowel. It also obtains its water from the gum leaves. Unlike the koala, however, it nests in hollow trees so normal requires forest with a good number of old trees. Ray found his specimen at the end of Coral Avenue, Kentlyn, in an area where there were few old trees. So we are interested to know where it comes from. If anyone has seen a greater glider in the Campbelltown region, please call the pager.

We find it amazing that such a beautiful and unusual animal as this can be almost completely unknown to the Australian public, whereas the koala is well known across the world.

Please report koala sightings to the UWS pager: 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, December 30, 2009

Note:

No column published on this date

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, January 6, 2010

Unknown territory explored

13/1/10

By Dr Robert Close and Tristan Lee

MAC KOALA

MAYBE he'd been so scared by the fireworks of New Year's Eve that he'd lost contact with his mother, or perhaps he was just growing so confident in his developing ability to climb and jump that he'd ventured too far into unknown areas around his mother's territory. Whatever the case, it was a very forlorn little koala that we found in a three-metre high Bauhinia tree in Sirius Street after concerned residents had reported him via the pager.

As Robert climbed up to him, the little koala reached out with both arms as if to say: "Give me a cuddle." Robert obliged, of course, but then we had to face the question of what to do with him. We'd never before encountered such a young animal without its mother.

He seemed too young to release in the nearest suitable eucalypt. The only other alternatives were to hand-raise him until he was big enough to release, or to search the district to see if we could find his mother. Although it was a great temptation to hand-raise him, we could not adequately replace his mother, who besides providing milk also directs the joey's education on important activities such as

tree and leaf selection and correct koala social behaviour.

So we decided to try to find its mother. We inspected all the nearby trees in Sirius Street without success, then we followed adjacent Dawes Place and a short walkway to Darling Avenue which separates the suburbs from the bush.

Some residents told us they'd seen a mother and joey at 10pm the previous evening in the walkway between Darling Avenue and Bradley Place.

Sure enough, high in a tall grey gum beside the walkway was a female koala without a joey. Surely she must be our joey's mother!

We then named the koala (Sirius) weighed him (1.9kg) gave him eartags and released him beneath the adult's tree.

Sirius shot up the tree and stopped about five metres from his presumed mother. We hope we made the correct decision.

Please report koala sightings to the UWS pager: 9962 9996.

Sightings pose new queries about marsupial behaviour

20/1/2010

By Dr Robert Close and Tristan Lee

MAC KOALA

THE residents of a house beside the walkway between Irvine Place and James Ruse Park in Ruse were perhaps a little sceptical when we told them they had a koala in their garden.

After all, we couldn't actually point it out to them.

We could only say that the signal from Charlotte's radio collar was clearly coming from either the tall eucalypt in their back garden or the plane tree in their front.

Eventually we spotted her among the dense foliage of the plane tree and the residents were intrigued to know whether she was actually eating the leaves of this introduced species, or just using it for shelter.

We thought the latter, but our koalas sometimes eat certain non-eucalypt species. The big question is why they don't eat leaves from other species more often when their complex digestive system

appears able to cope with less toxic and juicier leaves than eucalypts.

We can't answer that question, but Charlotte is answering easier questions such as "do koalas change their territories during the course of their lives?"

From years of study of our radio-collared female koalas, we felt confident in concluding that they are very faithful to their chosen areas.

Charlotte, however, has recently expanded her territory to the east and west.

The following night, a koala, probably Charlotte, was reported in nearby Dandenong Crescent beside the walkway leading to Darling Avenue.

Is this use of walkways by koalas a coincidence or do they remember where they occur?

Readers of last week's column will recall that

Sirius and his mother were both adjacent to two different walkways leading onto Darling Avenue and the bush. Using walkways would certainly be safer than crossing through back gardens.

When we eventually plot all our sightings on Google Earth maps, a clearer picture may emerge.

Ray and Mira Whitmore have started mapping sightings of koalas on Google Earth; sometimes they can identify the actual tree.

Ray has recorded more than 50 sightings since October during his walks around Ruse.

This weekend he spotted Alice with a big cub beside Old Kent Road. Alice is the daughter of June, the daughter of Shirley, so this is a valuable record.

Ray also spotted and identified Georgie, the 11-year-old daughter of Lyn, one of our original radio-tracked females.

Please report all koala sightings to the UWS koala pager, 9962 9996.

School kids await visits from wandering marsupials

27/1/10

By Dr Robert Close and Tristan Lee

MAC KOALA

SEVERAL koalas have visited schools in the Campbelltown area recently.

Kentlyn Primary School is the most popular followed by Leumeah High and Woodlands Road Primary schools.

If they have not yet actually entered the grounds of St Helens Park and Ruse primary schools they have certainly looked in over the fence, as did Amica late last year at Ambarvale High School.

It will be just a matter of time before Bradbury and Briar Road primary schools, St Pats, St Thomas More and Reiby Special School are all visited. It may take longer but we'll predict that John Therry High School will also be visited.

Last Friday night, Airds High School received its first koala visitor (as far as we know). Her eartags identified her as Curls, daughter of Charlotte from Ruse. Curls appears to be shopping around for

schools because late last year she entertained the students at Woodland Road Primary.

Her movements have been remarkable: from Ruse through Airds to St Helens Park and now back to Airds. Where to next?

Amica visited Woodlands Road Primary School in November 2008 and was found nearby with an injured hind claw. After rehabilitation at the Wildlife Health and Conservation Centre at Camden we released him in the Spring Creek valley which runs beside Woodlands Road.

A year later he appeared at the gate of Ambarvale High School, badly injured, we believe, from a fight with another koala that left him with a punctured eyeball and further damage to his hind toe.

So back to Camden he went, where his damaged

eye was removed and the lid stitched shut and his toe amputated. A month later he was clearly anxious to leave the hospital but set us a difficult problem.

If we returned him to Spring Creek, his rival might be waiting for him, with all eyes and toes intact. If we released him in suitable habitat elsewhere, another male would probably react to him and Amica would be at the added disadvantage of being in unfamiliar terrain.

Fingers crossed, we took the former course and Amica started exploring the terrain on foot, just as he'd done on his previous release.

He moved slowly from tree to tree, smelling each carefully until he finally disappeared into the undergrowth. Will we see Amica again and if so, in what condition?

Please report all koala sightings to the UWS koala pager, 9962 9996.

Curly continues to hit the road in search of a home

By Dr Robert Close and Tristan Lee

CURLS' adventures continued from last week's report where she was seen entering Airds High School.

Callers to the koala pager had previously allowed us to plot her course since August from Acacia Avenue in Ruse along Greengate Drive in Airds to Woodland Road in St Helens Park.

Here she spent a couple of weeks beside the service station and primary school generating dozens of calls to the pager until finally vanishing on December 13, we thought, into the safety of Spring Creek bushland.

Curly had other ideas, however, and walked the three kilometres back to Airds High without being reported.

Two nights later she was spotted crossing Riverside Drive where she climbed an ironbark tree and looked down on the service station.

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The police were also called and we explained to the officers that Curly was an experienced traveller.

Two days later she was spotted in a large tree in Kevin Wheatley Reserve and the next night she was in a tree looking down on the retirement village in Heathfield Place.

A caller reported small boys throwing stones at her and a call was made to the RSPCA.

However, it would be a brave boy who would take on the residents of the village, delighted to be visited by a koala on Australia Day.

Curly spent another night with her friends in the village before heading off again.

Heathfield Place leads to Smiths Creek which then runs through a reserve for several kilometres.

Perhaps Curly will find an unoccupied piece of bush to establish her territory there.

Relatively few sightings have been made in Smiths Creek, none of a mother and cub.

However, in September last year we tagged a young female at Carrington Crescent and, in mid-December, a big male was bellowing in nearby Dowling Street.

Two weeks later a koala was sighted in Tabourie Street and the following night in Conjola Crescent.

This week koalas have been spotted in Wyangala Crescent and in Smiths Creek, adjacent to Lugarno Avenue.

So let's hope there's still a place vacant for Curly.

If not, we'll no doubt receive a call from a school, service station or retirement village somewhere else in Campbelltown.

Please report all koala sightings (after looking carefully for, and noting the colour of eartags: one in each ear) to the UWS koala pager, 9962 9996.

A sibling for Curls emerges

By Dr Robert Close and Tristan Lee

FOLLOWING our report of the continuing adventures of Curls last week, another call came in to say that last Friday she was still in Heathfield Place where she had arrived on Australia Day.

We are pleased to report that back in Ruse, Curls' new brother or sister has just emerged from the pouch of their radio-collared mother, Charlotte.

This is her first cub since Curls was born in about September 2007.

Since Curls' departure, sometime after May 2009, Charlotte has been very active, moving across suburban Ruse and beside Georges River Road. Perhaps it's no wonder Curls shows no fear of roads and housing.

Not so well-taught were two young male koalas. One died recently near the Hansens/Ben Lomond Road intersection and the other was badly injured 300 metres south of the Rosemeadow roundabout on Appin Road.

Savea Flexman reported that he was driving along Appin Road when on-coming motorists flashed their lights at him. He then noticed an injured koala in the road and despite the dangerous situation, stopped, collected it and took

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it to friends in Rosemeadow, then called the koala pager.

Another caller, who must have passed the spot moments before Savea, reported that there were two koalas on the road on the road together, one large and the other smaller. Unfortunately the injured male died soon after we collected him.

Hopefully the other koala crossed the road successfully.

If it did it would find itself in Noorumba Reserve. This 60-hectare reserve is special in that it is largely Cumberland Plain woodland which is dominated by forest red gums, well-known for their value as koala food trees.

The soil here is more fertile than the places closer to the Georges River where our koalas are flourishing. The reserve appears to be excellent koala habitat and we have been waiting patiently for the first koalas to be reported. We expect it will be just a matter of time.

This case illustrates an important environmental question. Does the absence of koalas mean that



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Read about our local koalas online with Dr Robert Close's blog.

the area is not koala habitat or that they have not yet recolonised after an earlier catastrophe?

Currently in NSW legislation, a development site must be shown to have breeding females within its boundaries before the developers have to take special precautions to protect koalas.

Noorumba Reserve, therefore, is something of a test case.

Please report all koala sightings (after looking carefully and noting the colour of ear-tags - one in each ear) to the UWS koala pager, 9962 9996.

What's in the eucalypt trees

By Dr Robert Close and Tristan Lee

THE wandering Curis continued her tour of Airds last week, being spotted on Wednesday outside the police station.

Meanwhile, her mother Charlotte and her new cub were looking down on Georges River Road beside Botany Place, Ruse. This section of bushland is important for koalas, we believe, because it contains eucalypt species from two different soil types and is therefore like a smorgasbord for koalas.

It was a favourite spot for Shirley, one of our first radio-collared koalas who used the site for 15 years. Campbelltown Council recognised its importance by gaining a special grant to clear the site of weed species which had taken over the site making movement between trees difficult for koalas. Unfortunately, the weeds are making a comeback, being fed from the nutrients arriving in storm water which, in turn, arises from suburban streets and houses.

Little Sirius was also sighted, again without his mother, on Darling Avenue. Tiny though he is, his mother has clearly decided that it's time he fended for himself.

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More fortunate is the large cub of Alice who occupies the adjoining territory beside Old Kent Road.

We attempted to catch this cub last Saturday so that we could attach eartags before it left its mother.

This cub is important because Alice is the granddaughter of the above-mentioned Shirley and is the daughter of June and sister of Vicki and Shy. So we want to keep tabs on it.

Unfortunately the cub responded to the flag by lashing out at it, rather than climbing down the trunk to our waiting arms. It also cried out in an aggressive manner.

On hearing this cry, Alice, who was in a neighbouring tree about 10 metres away, climbed down to confront us.

She approached to within about two metres of the cub's tree, then courage failed her and she climbed a nearby tree from which to keep watch.

During this event Alice made no sound. As we withdrew and packed up our gear, the cub began



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making a different sound - more like the cry of a human baby.

We interpret this sound as meaning "I am no threat to you" because grown males will sometimes make a similar sound when being captured.

We suspect that, under natural conditions, they use the cry to dissuade dominant koalas from pushing them out of their trees.

Please report all koala sightings (after looking carefully and noting the colour of ear-tags - one in each ear) to the UWS koala pager, 9962 9996.

Sugar glider gets better

By Dr Robert Close and Tristan Lee

ONLY one call came in on the koala pager this week. It was to report the discovery of a rather stunned sugar glider in Wedderburn Gorge.

When we rang WIRES for assistance, they told us that there is just a small window of opportunity to help injured sugar gliders because after five days away from friends and family, they are not permitted back into glider society.

Fortunately, our Wedderburn animal recovered overnight at Bradbury vets and was released the following day at the gorge.

Like koalas, sugar gliders are marsupials that can feed on gum trees.

However, the gliders eat the sap rather than the leaves and also eat insects, as well as pollen, nectar and seeds from a variety of plants, especially wattles.

In turn, the gliders are food for owls, snakes, goannas, kookaburras and, sadly, cats and foxes. In the woodland ecosystems, therefore, the sugar glider affects many different component species and with its high reproduction rate and high density

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(up to 10 a hectare) appears to be an important component.

The koala, in contrast, appears to affect few other species. With a low natural density (0.1/hectare), it would be a very minor component of the diet of the powerful owls, goannas, dingoes and humans which were the koalas' original predators.

With a diet almost wholly of eucalypt leaves, koalas would probably affect their food species only if they reached unnaturally high densities such as on Kangaroo Island and isolated patches of woodland in Victoria where the normal programs of dispersal and predation are not functioning.

Koalas, unlike most mammals, have only one intestinal worm that depends on them. This is a tape-worm that rejoices in the scientific name of *Bertiella obesa*.

Most of our Campbelltown koalas carry one or two in their small intestines and the worms seem to have little effect on the koalas.

Then there's a small moth, *Telanepsia stockeri*,

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that lays its eggs in koala scats where they hatch into caterpillars that feed on the scat contents and leave through a small hole that they make in the scat. Koalas may have a broader role in the ecosystem in the pruning of eucalypts and the distribution of nutrients around the landscape but if so, it is yet to be discovered.

Please report all koala sightings (after looking carefully and noting the colour of eartags - one in each ear) to our koala pager: 9962 9996.

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Curls keeps cropping up

By Dr Robert Close and Tristan Lee

THE odyssey of Curls through Campbelltown's eastern suburbs took a dramatic turn this week when she was rescued by a fire brigade cherry picker.

Readers will remember that Curls left her mother in Acacia Avenue, Ruse in May 2009 and, since then, has roamed through Airds to St Helens Park and then back to Airds where she was seen last Wednesday week outside the police station.

There were no subsequent reports until last Saturday when a resident of Moonbria Place saw her on the road at 5am.

WIRES were notified and a member of that group assessed that Curls was in a precarious situation in a roadside bottle-brush so called the fire brigade.

They dispatched a cherry-picker from the St Andrews station and, by 9am, Curls was being flagged down to safety.

We received our first call from a resident at 10am and from WIRES at 10.30am but, by then, our work had been done for us, except for verifying from the koala's ear-tags that she was Curls and advising on where she should be released.

This is a big question. The temptation was to take her into the thickest bushland beside the Georges River as far from dogs and cars as possible.

We took that approach early in Curls' travels only to find her back in the suburbs a few days later.

We consider that all the bushland areas from St Helens Park to Minto Heights are now occupied by female koalas, each of which controls about 20 ha and somehow displaces any other female that arrives.

So Curls, we think, is roaming along the bush/suburb interface, trying to find a vacant space.

We advised WIRES to release Curls in the nearest bushland to Moonbria Place.

Curls, however, had different ideas and next day was reported in a eucalypt in adjacent Boonoke Place.

The drama continued when the police were called after teenagers were reported throwing stones at her.

With probably 100 new cubs being produced each year and few dying of old age, we can expect to find more young koalas venturing into our gardens and reserves. The community must take ownership of the koala population and protect it from dogs, cars - and people.

Please report all koala sightings (after looking carefully and noting the colour of eartags - one in each ear) to our koala pager: 9962 9996.

A slower pace in March

10/3/10

By **Dr Robert Close** and **Tristan Lee**

USUALLY koalas have an autumnal recession in March, which gives our koala team a bit of a break.

The koalas at this time don't move as far or so often as they did in preceding months and we suspect they may deliberately lower their profiles by choosing roosting trees with denser foliage.

These factors result in fewer sightings by the public and therefore fewer calls on the pager. Several calls still came in, however – yet another indication of the health of the area's koala population.

Two people called in to report a koala in a tree beside the road at Wedderburn Gorge on the Wedderburn side of the causeway.

One of the callers, Lou, a regular caller, reported later in the day that there was now a second koala in the same tree. Lou was then amazed to find yet another koala further up the road towards Wedderburn.

Lou couldn't see eartags on any of the three but said his eyes weren't as good as they used to be. Lou, if you can spot three koalas in a day beside

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that road, there's not much wrong with your eyes!

At midnight on the same day Chris, of Wedderburn, was driving towards the causeway when he saw a young koala trying to climb a lamp-post then fall back into the middle of the road.

Chris was worried about the koala's safety because some motorists drive too fast along that road. So he stopped his car, grabbed the young koala and released it beyond the safety fence. The koala responded to Chris's valour by scratching him on the wrist!

These sightings reinforce our view that the Georges River is a major dispersal route for young koalas leaving their mothers to find a territory of their own.

We ask drivers to drive slowly in the Gorge and keep an eye out for koalas – and people rescuing koalas.

A big, tagged koala was also reported in Smiths Creek Reserve, at Ruse. Its eartag colour combination identified it as Price, who seems to have



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Read about our koalas online on Dr Robert Close's

established a territory almost completely within the Ruse housing area.

He crosses Junction Road regularly and meets encounter dogs almost daily. He's a tough and capable animal. His bite could easily break a bone and make a deep incision.

Please report all koala sightings (after looking carefully and noting the colour of eartags – in each ear) to our UWS koala pager: 9962 9996.

Females keep mum close

17/3/10

By Dr Robert Close and Tristan Lee

MAC KOALA

THIS was a quiet week on the koala sightings pager. Autumn and winter tend to be quieter times for koalas while they take a breather before the next breeding seasons starts at the end of winter.

We have had a few sightings of June in Kentlyn Public School.

It would be interesting to know where Vicki (June's daughter) was at these times, as Vicki is the usual resident koala at Kentlyn Public School.

We tend to think they don't occupy the school at the same time but this has been difficult to conclude definitively. Our GPS collar results indicate that there probably isn't much association between their movements.

However, it looks like June very rarely enters the school grounds, so maybe she knows that is Vicki's territory and so only drops by on short visits.

Our sightings database has shown that female koalas in Campbelltown don't move very far from where they are born, and generally set up a home range very close to their mothers. These home ranges are fairly well defined and mother and

daughter rarely cross into each other's territory, apart from the obligatory family visit around Christmas or new year.

■ In other news we have heard of a lot of road injuries involving turtles after wet weather.

The recent wet weather has encouraged turtles to move around, unfortunately often crossing roads. Keep an eye out for turtles during or after wet weather and if you see one on the road please pull over and remove it.

It is easy to pick up a turtle: they will go back into their shell when you approach and you can simply pick them up using the fingertips of one hand around the edges of the shell. Placing the turtle as far from the road as possible will probably save it from being another turtle roadkill.

Please report all koala sightings (after looking carefully and noting the colour of ear-tags - one in each ear) to our UWS koala pager: 9962 9996.

Rock-hurlers target Curls

24/3/10

By Dr Robert Close and Tristan Lee

CURLS the koala has been getting into trouble again as she moves across the suburbs.

Last week we had several reports of people throwing rocks at Curls while she was up a tree in front of Airds High School. We eventually managed to send two people out, but by the time we got there everyone had cleared away and we couldn't find Curls. It appeared that people took our advice and left her alone.

We do occasionally receive reports of this type of behaviour. We can't understand how anyone would find it amusing to throw rocks at native animals, especially ones so vulnerable and harmless as koalas. Moreover, it's highly illegal.

Koalas are a protected species and it is an offence under state and federal law to intentionally harm, injure, or kill a koala. There are very severe penalties. Police have already investigated a previous incident involving Curls.

Frankly, we find it disappointing that we've had to involve the police just to convince some people that attacking koalas is wrong.

Curls appears to have made the Airds area her home for now, although she is still not completely

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settled. On two occasions now she has been relocated to the safety of bushland and on each occasion she has returned to suburbia.

We now will move her and other suburban koalas if they are in great and immediate danger. We will have to become accustomed to living with them.

As our koala population continues to grow, we expect there will be more koalas taking up residence in suburban areas. Residents near bushland at Kentlyn regularly see koalas on their properties, or in trees on the roadside, and know the koalas by name. We should welcome these animals and live with them.

We want to close by giving a special thank you to the people who called us and alerted us to Curls' whereabouts and took action to protect her.

We will respond to calls as soon as possible. However, we are just a small group of volunteers and sometimes are unavailable. In that case, or if a koala is injured, please call WIRES on 1300 094 737.

Please report koala sightings by calling the UWS koala pager: 9962 9996.

June comes back to die

31/3/10

By Dr Robert Close and Tristan Lee

ONE of our radio-collared females, June, was obviously ill when she turned up at Kentlyn Primary School last Thursday and collapsed in one of the garden beds.

June (pictured with Jemima) had been either in the school grounds or nearby for the past two weeks. This behaviour had made us a little uneasy because she had left the school some years ago in favour of her daughter, Vicki, to spend most of her time in the adjacent retirement village and the bushland reaching down to the river.

However, she seemed bright enough and was climbing trees to feed without apparent difficulty. So it was a shock to see her so poorly.

She was then taken to the Wildlife Health and Conservation Centre at Cobbitty where she was found to be emaciated and suffering from a form of cancer called lympho-sarcoma. Recovery was not possible so June was euthanased.

So ended a life of 10



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years which had delighted the students of Kentlyn Primary School and the residents of the retirement village. When staying in the village, she liked to hide in the dense foliage of the large pine trees where she was almost impossible to see. This behaviour would have made her cubs safe from powerful owls.

Curiously, she also nibbled on the pine needles, as detected by analysis of her faecal pellets.

June started life as the sixth cub of Shirley, who lived near the junction of Darling Avenue and Georges River Road.

On weaning, she wandered around the nearby area before settling about one kilometre north of her mother in and around Kentlyn Primary, nudging the then resident, Lyn, across the road. She then set up her own dynasty by producing five cubs. Two of these, Vicki and Shy have settled on the northern and southern sides of the school.

We wonder why she returned to the school.

Perhaps the range of trees in the school grounds provided additional nutrients or higher water content in the leaves. Or maybe she just wanted



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Read about our local koalas online on Dr Robert Close's blog.

the contact with her daughters when she was suffering. This may not be as unlikely as it sounds.

After the big fires at Wedderburn we found another previously separated mother and grown-up daughter together in an unburned tree.

So if anyone noticed two koalas together in or near the school during the past two weeks we would be pleased to hear from you.

Please report all koala sightings (after looking carefully and noting the colour of eartags - one in each ear) to our UWS koala pager: 9962 9996.

We care about Curls

What was the biggest-hit story on our website this week? Poor Curls the koala - see the story on page 5. It shows how much our local koalas are loved and appreciated by (most) locals.

MAdd
31/3/10

Chatter from our website

[Reports of rocks thrown at koala in Airds] Did Curls survive the attack? Is this the second time this has happened? The people who throw the rocks should face the death penalty - irrespective of age of the offenders. Studies have shown that people who hurt animals move onto to humans. Remove them from the planet. We do not need them. - Molly

How did the koala get in Airds to start with? I know from living in Airds that some kids love to hurt anything. Lock them up. - random123

As a resident and local community worker, I spotted Curls the koala a few weeks back, in a tree on Riverside Drive. WIRES was called as there were concerns for Curls' safety - menacing teenagers and traffic. I hate to say it, but Curls should have been removed there and then, and placed somewhere safe, further in the bush where people were not tempted to throw things at her! - Koala Spotter

Pelt them with rocks

Kids caught pelting koalas with rocks should face the same treatment.

Anna Eshe, Bradbury

31/3/10

Curis still alive and well

By Dr Robert Close and Tristan Lee

BRIDIE and Kasey Wasson are used to their mother Julie spotting koalas.

Julie would see them as they drove through the gorge to the family home at Wedderburn.

When the Wassons moved across the gorge to near Lynwood Park, however, we thought that Julie's role as one of our regular reporters would cease. To our surprise, she called again last December to report that Curis was high up a telephone pole in the front of her new home.

At this stage, having unsuccessfully tried moving her to adjacent bushland, we had decided to leave Curis to her own devices and not move her, even when she came into housing areas.

Curis then moved into Woodlands Road, where she caused a considerable stir for about two weeks before moving back to Airds, where she had spent the previous October.

Her return to central Airds caused an even greater commotion, as reported in recent Mac Koala columns. Her adventures included the police, the fire brigade, WIRES, Sydney Wildlife Group and, of course, the many residents of Airds

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who enjoyed having Curis living among them.

The adventures culminated in reports two weeks ago that Curis had been stoned. She then disappeared and we were beginning to fear the worst.

It was a great relief then, to receive a pager call from Julie to say that she thought Curis was up the same telephone pole that she had climbed three months before.

We were soon out to check, and sure enough it was Curis.

She had travelled more than a kilometre since her previous sighting outside Briar Road Public School. We now had to decide what to do with her.

If she continued on her previous path she would soon be back in Woodlands Road where she would cause another ruckus. We decided, therefore, to catch and release her in Spring Creek where a patch of bushland had become vacant on the death of Brittany from lympho-sarcoma a few months ago.

Accordingly we caught Curis and found her in excellent condition, weighing in at 5.6 kilograms.



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Read about our local koalas online on Dr Robert Close's blog

We then released her less than a kilometre away into the bush off Fullarton Crescent, St Helens Park, where Brittany had lived.

Where will we see her next? Hopefully not on Apple Road where yet another young male koala was hit last week, not 200 metres from the koala crossing sign.

Please report all koala sightings (after looking carefully and noting the colour of eartags - one in each ear) to our UWS koala pager: 9962 9996.

Unknown truth is out there

14/4/10

By Dr Robert Close and Tristan Lee

WE were contacted recently by a federal committee that was investigating the status of koalas in Australia.

The committee wanted to know the number of koalas in the Campbelltown region and whether we thought the number was changing.

Because it's difficult to count koalas accurately, we gave an estimate based on the average size of a female koala's home-range (20 hectares), the area of suitable habitat and our observation that there are few bushland areas between the Georges River and the built-up areas between Long Point and Wedderburn that don't have a resident female.

Our estimate was 300 koalas.

However, the huge areas of Holsworthy Firing Range, the Woronora Catchment Area and Heathcote National Park adjoin the Campbelltown koala habitat. We have never been able to survey this area adequately, but we know that koalas have been sighted occasionally across that area and we have seen koala faecal pellets beside creeks on the eastern side of the Georges River.

We estimate that even if female koalas exist

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there at the low density of one per 100 hectares, then there will be another 300 or so koalas in that large area.

As to the question of whether the population was changing, we reported that we were convinced that the population was increasing. Our evidence for this was that most of the females that we have studied are living long, productive lives and that many of their joeys are establishing their own home-ranges. Furthermore, we have accumulated much anecdotal evidence that long-term human residents of Campbelltown bushland are regularly sighting koalas now but did not see them two decades earlier.

Some interesting statistics: Since 1993 we have put ear tags on 150 koalas in the Campbelltown region, 77 on males and 73 on females. Of these, we know that 20 males and 10 females have died. Of the 57 males and 63 females potentially alive, six males and four females are now at least 15 years old and have also probably died. So there may still be 110 tagged koalas alive in the region.



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Read about our local koalas online on Dr Robert Close's blog.

However, we still encounter many untagged koalas.

The three local koalas killed by cars in the last two months were untagged.

So we believe that our estimate of 300 living koalas is reasonable, but we rely on people to report sightings to us (alive or dead) on the pager.

Please report all koala sightings (after looking carefully and noting the colour of eartags - one in each ear) to our UWS koala pager, on 9962 9996.

Two stuffed koalas stolen

By Robert Close and Tristan Lee

LABORATORY staff at the University of Western Sydney, Campbelltown, recently discovered that our two stuffed koalas had been stolen from the biology labs.

These koalas, prepared by local taxidermist Roger Carris, had over many years been used at schools, talks and events such as Riverfest.

One had even been paraded, as if on a funeral procession, in a public protest against the proposal to build Sydney's second airport in the Holsworthy firing range.

The first koala had been hit by a vehicle on Wedderburn Road while the other was euthanased after a bite during a fight with another male had broken its upper arm.

Mr Carris removed and tanned the skins and with plaster, wire and polystyrene sculpted the shape of the animal into a life-like pose with artificial eyes and sewed the skin over the model.

Taxidermy is an exacting and labour-intensive skill.

Did the thieves steal the koalas for a prank?

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Can we expect photos of the koalas in exotic places? This theft was not a student prank. The loss occurred in a non-teaching period during which the labs were open for equipment to be moved.

■ On a brighter note, we congratulate Lynn Bowden on her well-earned heritage medallion that was presented at the heritage forum at the Campbelltown Art Centre on Thursday. Ms Bowden has devoted much time and energy to our work with koalas and we have depended on her skills, enthusiasm and her skills in communicating with the community.

■ We would like to advertise a Stream Care project, run by Campbelltown Council, that started on Sunday in the home-range of radio-collared koala Courtney in Spring Creek, St Helens Park, where volunteers began the hard task of weed removal. They will meet monthly and if Courtney is



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Read about our local koalas online on Robert Close's blog.

nearby she will be located at the start of each session. The council also has a Stream Care project at Noorumba Reserve, Rosemeadow, a starting two others in Botany Place, Kentlyn (in home-range of Curf's mother, Charlotte), and Redfern Reserve, Ingleburn. Volunteers are needed. Please ring: 4645 4601. Learn skills & help restore the natural environment.

If you spot a koala - live or dead - call the UW pager, 9962 9996.

Curls impresses footy lads

28/4/10

By Robert Close and Tristan Lee

THE great odyssey of Curls continues.

On April 5, we moved her into Spring Creek bushland off Fullerton Crescent, St Helens Park, hoping she would settle into a site made vacant by the recent death of Brittany.

But Curls had other ideas and on April 10 she was reported two kilometres south in McKillop Crescent, one of the most southern streets in Campbelltown.

On April 21, a motorist reported a koala was trying to cross Appin Road from Oswald Reserve, Rosemeadow, 100 metres south of the Shell service station despite the heavy 4.30pm traffic.

Robert Close was soon at the scene and was directed to a tall eucalypt 30 metres east of Appin Road where a koala was in the upper branches, too high to see any eartags. A group of lads playing football at the reserve described how the koala had waited patiently beside the road and crossed only when there was a break in the traffic.

They said the koala had eartags and they

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produced a mobile-phone picture which identified the koala as Curls.

Where will she go now? Most of the dispersing males continue south, roughly following Appin Road. Many of these are hit by cars.

Curls has now crossed over that road then back again, so we hope she stays on the eastern side.

If she continues south and avoids Appin Road, there won't be so many people around to report her movements so we may not hear from her so frequently. All in all, it's been a remarkable journey.

■ It was a sad day for us on Friday when Amanda died quietly at the magnificent age of at least 15 years. We first put a collar on her in September 1997. At the time she had a joey, Andrew, on her back, so she must have been at least three years old then. We captured her beside Junction Road after she'd crossed over from Leumeah High School. Three months later she had another joey in



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Read about our local koalas online on Robert Close's blog.

the pouch but after a year of radio tracking she lost her collar and we did not find her again till August 2002. She wore a radio-collar consistently since 2002 and lived in a consistent home-range which included Peter Meadows Road which she regularly crossed. She had many adventures, some of which we'll outline in next week's column.

Please report koala sightings on the UWS koala pager, 9962 9996.

News

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Amanda captured hearts

By Robert Close and Tristan Leo

OUR work is unique in that we have followed the lives of individual koalas for up to 17 years.

Amanda, who died last week of old age (specifically a ruptured, cancerous spleen) at the splendid age of at least 15, provided much information.

When first captured near Peter Meadows and Junction roads in August 1997, Amanda was carrying her first offspring, Andrew.

We fitted her with a radio collar and followed her as she moved two kilometres south to Old Kent Road before founding her steps to establish a terri-

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tory of 25 hectares behind the Buddhist temple and on either side of Peter Meadows Road up to Hereford Place.

So just like Chris, whose movements we've reported recently, she had a period of exploration before choosing an occupied and suitable place.

Andrew left his mother in November 1997 and in December there was another joey in the pouch. This joey was still with Amanda in July 1998 when her radio collar failed.

Unfortunately, this meant we lost contact with Amanda, too, and were unable to catch her again until August 2002.

During this interval she was occasionally reported to us, sometimes with a pile of her back, so potentially might have produced another few joeys.

She had an empty pouch on recapture and a new joey, Debbie, did not appear till June 2003. She stayed with Amanda till October then moved two kilometres north and settled on a property in Minta Heights where the resident sends us regular reports on her latest joeys. A new joey, Gala, was not seen until June 2005.

This joey stayed with her mother till October but died during weaning and we found her body at the



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Read about our Koala Collaring with Robert Close

base of a tree. The next joey appeared in and stayed with Amanda till January 2004 and disappeared during the Hazardous waste.

In August 2007, Amanda produced her PM (named for Peter Meadows Creek and Kevin O'Neil). PM left home in January 2008 during her life Amanda successively produced joeys and may have produced another few.

She survived despite the busy road in the range and the dogs running through the area.

Amanda was beloved by a family whose she visited regularly and by her many visitors in Wale, Amanda.

Please report koala sightings on the LHM page, 9962 9996.

Parting is indeed a sorrow

By Robert Close and Tristan Lee

THE pager message, dated May 7, 10.43pm, was stark: "Pls ph Craig re koala hit by car, has light blue tag in left ear & dark blue or black in right ear."

These were the tag colours of Curis.

This is the young koala that has been delighting residents of Airds and St Helens Park for a year since she left her mother, Charlotte, in Ruse.

Her movements had been reported regularly to us by residents (she wasn't carrying a radio-collar) and, as the crow flies, she had covered a distance of 13 kilometres - though the actual distance was probably much greater.

The last time we had seen her was on April 21, 100 metres north of the Shell service station on Appin Road, Rosemeadow.

Craig's call came from beside the service station but for some unknown reason the pager call was not transferred to us until the following day, at 10.30am.

This malfunction left Craig waiting beside Appin

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Road in the dark with a badly damaged koala. He told us he'd seen the koala in the middle of the road but as he pulled off to help it another car slammed into the koala and sped off without stopping. Amazingly the koala managed to climb a few metres up a tree beside the road. As she did so, Craig noticed a joey protruding from the pouch.

At the time we eventually received the call, we were radio-tracking koalas with a group of UWS advanced-science students.

We immediately headed off for Appin Road and discovered Curis in a huge ironbark only a metre from the road.

When we arrived, she moved a metre up the trunk and we could see that there were no broken legs and no apparent head damage. However, she did not respond to the flag, so we decided to leave her in the tree and carefully monitor her situation.

That night we couldn't find her but the following morning she was back in her fork.



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Read about our local koalas online on Robert Close's blog.

Sadly she died during the afternoon, apparently from internal injuries.

Of the joey there was no sign. So ended a short but adventurous life and one that demonstrated to many Campbelltown residents how close we are to the bush and how fortunate we are as a community to have this resource at our back door.

Please report koala sightings on the UWS koala pager, 9962 9996.

Mum and joey on move

By Robert Close and Tristan Lee

WHILE Curis and her first joey were trying unsuccessfully to cross Appin Road last week, Curis' mother, Charlotte, with her new joey, were moving further into the suburban area than we'd seen her move before.

The pair were radio-tracked by 10 advanced science students from UWS who were learning about our research methods. Starting in Acacia Avenue, Ruse, where Charlotte had last been seen two weeks previously, they followed the radio signal northwards into James Ruse Park.

This park has some excellent stands of trees growing on shale soils, which are more fertile than the sandstone soils found nearer the Georges River. It is likely, therefore, that trees growing in the more fertile soils will have more nutrients and fewer toxins. For a mother feeding a large joey, finding such trees may be important.

This may explain Charlotte's movements. It may also explain why Curis, also nursing a joey, would not settle.

In fact, Charlotte didn't stay in the park but

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continued into Old Kent Road past Oberon Road, where she climbed a large tree in the broad median strip. Her next moves will be crucial. If she continues into new territory, she will follow Old Kent Road or the bushland corridors of Stromlo and Cook reserves to Junction Road and eventually Smiths Creek Reserve.

In our experience, however, established females are faithful to their accustomed areas and know it and its trees in great detail. Charlotte's area is more than 50 hectares and we expect that she will soon return to her favourite spots.

She and the joey, however, are always at risk from cars and dogs, so we ask drivers to be aware and dog owners to investigate if their dogs exhibit any unusual behaviour.

■ Somebody contacted the Advertiser this week suggesting that our study of Curis' travels ultimately led to her death. In fact, Curis was moved three times from dangerous situations



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Read about our local koalas online on Robert Close's blog.

(once by WIRES and twice by us) and we would have moved her from the verge of Appin Road had a catch been possible. To move or not to move a koala in danger is always a difficult decision.

Without our study of Campbelltown koalas, we would not have even known that all the sightings Curis on her journey were of the same animal or that she was Charlotte's daughter.

Please report koala sightings on the UWS koala pager, 9962 9996.

New system working well

By Robert Close and Tristan Lee

In last week's chatter from the Advertiser website, a reader bemoaned the death of Curis and wondered whether we could obtain a more efficient paging system: "... maybe Curis would have been saved if the pager had worked".

Sadly, Curis suffered a ruptured liver in the collision. Even if we had found her at the time of the accident (Friday, 10.30pm), instead of 12 hours later, when we finally received the pager call, she would not have survived.

Ironically, we recently upgraded our paging system to try to reduce delays in responding to calls.

In our original system, the pager company would send a text message to pagers carried by two members of the koala research unit who would then phone the original caller.

Problems arose if both pagers were out of range, or turned off in a movie theatre, or low on battery life or, if the caller could not be contacted by phone. This system cost about \$30 per month.

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With our new system that costs about \$75 per month, four members of the team receive SMS messages to their mobile phones and emails to their computers.

One of the four is the nominated responder who contacts the caller to record the details and arrange a response, then sends an SMS to the other three members to confirm the message has been received and acted upon.

If the nominated responder has not notified the other three within 10 minutes then one of them will contact the caller.

The system certainly worked well this weekend when the nominated responder missed a pager call because he was driving.

Another member of the team then responded to the call that reported Georgie in Kentlyn.

Georgie is the 12-year-old daughter of Lyn, who died at the age of 14 after a long life near Kentlyn Primary School.



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Read about our local koalas online on Robert Close's blog.

Another call came in from Sirius Street, Ruse to report adult female Liz, and yet another from nearby Denison Street where Sirius was seen.

Sirius is a young male that left his mother at Christmas time 2009.

To add to the mix, radio-collared Charlotte (mother of Curis) was only 200 metres away.

Please report koala sightings on the UWS koala pager, 9962 9996.

Jeremy's not Sam's dad

2-6-10

By Robert Close and Tristan Lee

READERS of this column will recall that in 2006 we captured two young Campbelltown koalas, Jeremy and Flossie, and released them with radio collars 100 kilometres south in Tarlo River National Park.

Previously, koalas had not been sighted there since the 1970s.

Unfortunately, Flossie's radio collar failed after only six weeks and we lost contact with her.

In October 2008 we released a replacement female, Melissa, in Jeremy's favourite valley.

She immediately moved about 500 metres away and remained there for a year before recently moving a kilometre west.

Jeremy settled down for a few months but we never saw them closer than 200 metres.

When Melissa's cub, Sam, appeared, we could not be sure that Jeremy was the father.

Melissa's pouch was empty when we released her, but given that the gestation period of koalas is about 30 days she may have mated with another in Campbelltown shortly before her release.

Tristan has now discovered from his DNA studies

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that Jeremy is definitely not the father. Moreover, Sam's DNA has genetic markers that are common in southern koalas but uncommon in Campbelltown animals.

So although we cannot be totally sure that the father is not from Campbelltown, the most likely conclusion is that a local Tarlo male is the father.

This outcome is a good one because it shows that the fledgling koala population at Tarlo will not be an inbred one based solely on a small sample of Campbelltown genes.

It also shows that although an area may not have recorded koala sightings for many years, there may still be a small resident population of koalas. In all the time that our group has spent searching for Flossie and radio-tracking the three koalas over four years, we have sighted a local Tarlo koala only once.

Koalas' abilities to survive at very low densities across large areas of potential habitat augurs well for their long-term survival because it means that there are always likely to be colonies that can



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Read about our local koalas online on Robert Close's blog.

recover after fire or disease has destroyed major populations.

We believe that the Campbelltown population is one of these recovering colonies and that it is important for the region that our young koalas now disperse as widely as they can to establish new, safe-guard groups.

It is disappointing, therefore, to see so many young, dispersing koalas dying on Appin Road.

■ Please report koala sightings on the UWS koala pager, 9962 9996.

Joeys protected by mums

Mature males resting for battles

By Robert Close and Tristan Lee

IT APPEARS that, at last, the quiet period has commenced for koalas.

During this period, we receive fewer reports of sightings than normal.

Shorter days and colder weather mean that there is less time for spotting koalas and fewer people may be out walking to spot them.

Nevertheless, joeys are beginning to be independent and mothers may be trying to protect them from predators, such as powerful owls, by sheltering in trees with dense foliage.

Mature males may be resting up to prepare for the battles of next month and August when they fight for dominance over their patch of bushland, while younger males may be resting before commencing their travels to find their own territory.

Whatever the case, we receive fewer calls at this time of year.

One unexpected call, however, came from WIRES to say that there was a koala up a phone pole at Penrith.

This sighting, unfortunately, turned out to be a

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brush-tailed possum. Two genuine recent sightings, however, of different animals came recently from East Blaxland, while in March there was a koala sighting at Glenorie.

In the last 18 months there have been sightings of animals at Cranebrook, a few kilometres north of Penrith.

Where are these animals coming from?

We know from our studies that male koalas can travel at least 15 kilometres from their mother's territories, so the presence of a male koala almost anywhere in the Sydney basin need not necessarily mean that there is a breeding population nearby.

We know from our plotting of the movements of Curls - the young Campbelltown female from Ruse - that female koalas can move considerable distances even when they are carrying a large joey.

So finding a young female with a joey at a given site does not mean that the site is suitable for maintaining a permanent koala population.

We know, too, from our work at Tarlo National



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Read about our local koalas online on Robert Close's blog.

Park, that koalas at low density can live undetected in an area for years.

So the East Blaxland males may have wandered south from the known breeding population at Colo Heights.

The Cranebrook animals, however, would have had to cross the Nepean River.

They may, therefore, have come from a local resident colony disturbed by recent land developments in the area.

Only research can answer these questions.

Please report koala sightings on the UWS koala pager, 9962 9996.

We spoke a bit too soon

By Robert Close and Tristan Lee

MAYBE we spoke too soon last week when we suggested local koalas were having their annual "quiet time".

Since then we've have had five calls, all based around Old Kent Road.

The most easterly was to report a large koala at Kentlyn Primary School. This school is a great favourite for koalas and the pupils had spotted the tell-tale droppings long before the koala was eventually sighted.

We would like to know why the school is so favoured by koalas - perhaps the smorgasbord of eucalypts that have been planted in the grounds give the koalas greater choice to find trees with more nutrients or fewer toxins.

Our second reported sighting, of a large healthy koala, was near a firetrail that starts about a kilometre west from the school on Old Kent Road.

This firetrail runs north parallel to Peter Meadows Creek and passes through bushland that carries a relatively high density of koalas.

It includes the home-range of Georgie (pictured) whom we mentioned in a recent column because she'd been photographed with a badly injured shoulder. Unfortunately, we've still not been able to

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find her and ask bushwalkers in the area to watch out for her.

Koalas can still climb even with severe injuries.

One of our earliest radio-collared koalas, Mollie, survived (with help) a broken femur, while our studies of

skeletons of local koalas have shown broken fore-arms that have healed.

One old male killed on Appin Road had such severe arthritis that the bones in one wrist had fused solid at twice the normal width. He must have been climbing with that injury for a considerable time.

Our next report came of an untagged koala not far from where the Old Kent Road firetrail meets Peter Meadows Road. The animal was in one of the favourite trees of Amanda, who died recently at age 15.



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Read about our local koalas online on Robert Close's blog.

The final reports came from the junction of Oberon Road and Old Kent Road near James Ruse Park where radio-collared Charlotte (mother of Cuts) and her as yet unnamed joey had been feeding in a large *Eucalyptus nicholii*, known to keepers in koala parks as the "koala lollypop" tree because koalas love it so much.

Examination of the piles of droppings beneath the tree showed three sizes - large, medium and small - so it appears there's also a large male in the vicinity!

Please report koala sightings on the UWS koala pager, 9962 9996.

Females go off wandering

By Robert Close and Tristan Lee

WHEN the pager message reported a koala in Stromlo Reserve, Ruse, I expected it to be Charlotte and her baby, whom we had radio-tracked to nearby Cook Reserve.

Or maybe the unseen male koala whose presence we had detected by its large droppings and reported in last week's Mac Koala column.

However, when we rang the caller, the ear-tag colours she reported were not those of Charlotte or any local male.

Instead, the colours were those of Janice, who normally lives just south of Peter Meadows Road, one kilometre away – but separated by three suburban streets.

So here we have two mature females, each one kilometre from its normal area, one almost independent joey and a mature male gathering in a narrow reserve deep in suburbia.

What's going on? We've now seen several similar instances where females have suddenly charged out of their customary territory to meet a male.

Three of these events have involved two females and a male. We've always assumed that these assignments were for breeding, but the breeding

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season normally begins in August. We would be interested to know if any residents living near Cook, Stromlo or James Ruse reserves have heard bellowing that sounds like a mixture of pig-grunting and trail bike revving.

It will also be interesting to check Charlotte's pouch later when we change her collar to see if she's carrying a joey of a size that would match a June mating.

Janice's history is interesting. Her mother was Irene, who lived beside the Georges River at the junction of Airds and Ruse.

In 2002 Janice would have left her mother and crossed Charlotte's home-range perhaps through the James Ruse Reserve to establish her own territory beside Peter Meadows Creek.

Much of what we know about our Campbelltown koalas we owe to the local residents who call to report sightings.

■ Readers may be interested to know of two other innovative koala community projects.

First, at Kyogle, in the north of the state, a community group is keeping a photographic record



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Read about our local koalas online on Robert Close's blog.

and map of all the koalas that they find along a road in the district.

See their fascinating work at <http://picasaweb.google.com/k.komodo> and <http://maps.google.com.au/maps/ms?>

The other group is recording public sightings across the country and is making the data available to everyone.

See the marvellous website at www.koaladiaries.com.au.

Please report koala sightings on the UWS koala pager, 9962 9996.

Special cuddles

If you live in Ruse and have heard strange sounds like a mixture of pig-grunting and trailbike revving, it might not be a pack of hoons down at the local park. It might actually be a couple of marsupials doing what comes naturally. Local koala expert Dr Robert Close is following the noisy activities of local koalas as they head into the breeding season and needs help from residents living near Cook, Stromlo or James Ruse reserves. See our weekly Mac Koala column on page 20 for the details.

Termite has role to play

By Robert Close and Tristan Lee

30/6/10
June

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IN A previous column we discussed the importance of koalas to the bushland ecosystem and concluded that, as far as we know, the only species that rely on koalas are a unique tapeworm and some moths that lay their eggs in the koala faecal pellets.

So the koala is probably not vital for the functioning of a eucalypt forest.

Its major importance for biologists, however, is in being the only species in its family and the only example of a unique relationship with eucalypts.

In contrast, the kangaroo family includes more than 50 species.

Imagine if there were 50 species of koalas appearing in different sizes, shapes, colours, vegetation types and with different dietary preferences.

In contrast to the koala, the termite or white ant is found in a number of similar families with more than 200 Australian species and has a vital role in the bush ecosystem.

Termites can digest cellulose and thereby break down dead plants and recycle their components.

These ant-like insects also provide food, not only

for termite specialists such as echidnas and numbats but also for lizards, spiders and ants and other predatory insects.

Unfortunately, a few species often eat the timber in housing.

The most damaging species in Campbelltown have their main nests in the root crowns of trees, in dead stumps or behind timber retaining walls.

From these nests, the termites build earthen tunnels, usually in the top 200 millimetres of soil, which can extend for more than 50 metres in their search for food.

It's estimated that a third of all Australian homes will be attacked by termites and all timber-framed houses in Campbelltown are vulnerable.

Householders can detect termites by searching under the house or at the edges of the slab for the tell-tale earthen tubes or by examining old bits of timber half-buried in the soil for the pale termites themselves.

Please report koala sightings on the UWS koala pager, 9962 9996.

Mining plans put environment at risk

By Robert Close and
Tristan Lee

OUR Campbelltown koala population is likely to be affected by the proposed expansion of the BHP Billiton mine near Appin.

The mine is an underground coal-seam mine, of the type that has already affected waterways near Campbelltown.

The proposed expansion will massively increase the area of land being mined, and will be the largest underground coal mine in Australia, covering 220 square kilometres.

There are also possible impacts on our drinking water supply as the mine will be under parts of the Nepean, Cataract and Woronora catchment areas.

Our main concern is that the mine will affect the water table and reduce, or even destroy, the water flows along many of the swamps and creeks that cross the koala habitat and feed into the Georges River.

Our radio-collared female koalas have all lived close to the Georges River or one of its tributaries.

We suspect that this preference is related to the availability of water for the trees on which the koalas feed.

Koalas have a complex relationship with the water they

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Read about our local koalas online
on Robert Close's blog.

7/7/10

obtain from leaves. In very hot weather they pant to cool down and this raises their demand for water. So they have to eat more leaves to supply that water. The more leaves they eat, the more toxins they consume. If there is less water in the leaf, then the koalas suffer.

The potential impacts are not limited to the location of the mine.

The mine subsidence and draining of waterways means the effects could be felt far beyond the boundaries of the mine.

This makes the impacts difficult to predict.

It is ironic that the Wedderburn site, where koalas were discovered in 1986 and where the ensuing battle with developers led to worldwide

publicity, lies directly adjacent to a proposed mine.

When the coal is gone, the mine closed, the workers have lost their jobs and the royalties have stopped flowing, what will we have left? Will the koalas survive? Will our beautiful O'Hares Creek still be flowing or will it drain through the cracks and holes caused by the mine?

Attend the information night on Wednesday, July 7 at 7.30 pm at the Campbelltown Arts Centre and hear speakers from Campbelltown and Wollondilly councils, the National Parks Association and Rivers SOS.

Questions from the audience will be taken.

■ Please report koala sightings to the UWS koala pager, 9962 9996.

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Love is in the air for the boys

By Robert Close and Tristan Lee

14/7/10

KOALAS have started bellowing across the state.

We've had calls from Lismore, Colo Heights (near Kurrajong) and Leumeah.

We suspect, but don't know for sure, that this means that large males are advertising to other males that they have chosen the best habitat and will fight to keep it or are calling females.

They choose positions from which to call, such as cliffs overlooking valleys, so sound will travel.

They also choose the weather, preferring still conditions in the late evening when there is a temperature inversion - where a layer of warm air is overlaid by a layer of cold air. The koala's call hits this layer and bounces back thereby extending the distance the sound travels.

Several callers reported bellowing from Parkhill Avenue, Leumeah, which is close to Smiths Creek Reserve.

We believe the animal was Price, an enterprising koala that has spent most of his time close to housing in Ruse, since we ear-tagged him in Darling Avenue in July 2008.

Another report came from near the northern end of Georges River Road where the caller, sadly, had found his two dogs with the body of a young, untagged male koala.

We took it to the Wildlife Health and Conservation Centre at Cobbitty for a post-mortem which revealed a ruptured liver and bruising. July is the time when young males start their travels, so we ask dog owners and motorists to take special care.

Appin Road is our most fatal road for koalas, but is also dangerous for other species. We were called out to deal with a young male wallaroo that was lying injured beside the road. Wallaroos, or Hill kangaroos as they are also called, are big animals with males weighing as much as 50 kilograms.

Report koala sightings to pager 9962 9993.

Charlotte's car encounter

By Robert Close and Tristan Lee

THE Campbelltown Council-sponsored Stream Care group were just unpacking their tools in the 8am frost at Spring Creek, St Helens Park on Sunday when they spotted radio-collared Courtney in a huge stringybark above them.

This was one of several sightings this week.

An earlier pager call had alerted us to an untagged koala low in a tree beside Georges River Road at the junction between the territories of Vicki and Charlotte, both of whom we have radio-tracked for several years.

On capture it turned out to be a female that, from the wear on her teeth, we judged to be more than 10 years old. It's amazing that we have not encountered her earlier.

She was carrying a three month-old joey, but had matted fur on her back and shoulders, the sign of a mite infection, or mange, as it is usually known.

This is the first instance of mange we have seen.

Another caller reported her dogs had bailed up a tagged koala on a fence at Ruse.

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This turned out to be Susan, whom we had tagged two years ago at a nearby address.

After several "rescues" from houses at the time we decided to move her about two kilometres away to the safety of the bush near the Georges River.

Unfortunately, she returned and dried saliva on her ears and shoulders indicated the dogs had attacked her.

An inspection at Campbelltown Veterinary Hospital showed no obvious injury so we released her into the bushland at Ruse.

She climbed gingerly, however, indicating that the dogs may have caused some bruising. (The skin of a koala is so tough and elastic that a dog's teeth can bruise without breaking the skin.)

Our final call reported the near-collision of a koala and cub with a car on Old Kent Road, Ruse.

That turned out to be Charlotte, and her as-yet-unnamed and untagged joey, who have been living near James Ruse Park for some weeks.



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Read about our local koalas online in Robert Close's blog.

The pair were separated during the vehicle incident, but we expect they will reunite.

The joey is almost independent and we had discovered it the previous day in the same tree as its mother, only several metres away.

Please report koala sightings on the UWS koala pager, 9962 9996. (Note: last week we gave an incorrect final digit, our apologies.)

Mum and joey reunited

Mature males resting for battles

By Robert Close and Tristan Lee

AS last week's column went to press, Charlotte and her large joey had been separated by a near collision with a car.

Fortunately, we found them together the following day in a large grey gum in the median strip on Old Kent Road. We don't know how mothers communicate with their young over large distances, but it seems to be very efficient.

They have now moved 200 metres into the relative safety of James Ruse Park.

They are not troubled by cars but every backyard facing the park seems to hold a large dog.

The joey is certainly developing experience on how to survive in suburbia.

However, its sister was Curly, the young koala that wandered around Ruse, Airds and St Helens Park for over a year before being killed on Appin Road. Curly could handle small roads but had no experience with speeding cars.

Another call reported a tagged koala at the northern end of Darling Avenue, Ruse.

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This turned out to be Liz, a young female who has established a territory on the edge of suburbia.

The caller reported that he had lived beside Darling Avenue for 35 years but this was the first koala he had seen.

However, experienced koala spotters regularly see koalas near Darling Avenue. Success requires methodical searching for unusual shadows and shapes.

We're hoping that someone will spot Susan, a koala we released last week near Darling Avenue, adjacent to the northern walkway from Denison Street, after a brush with three backyard dogs.

We would like to check her condition.

A few weeks ago we asked bushwalkers to watch out for Georgie, a 12-year-old female who lived only 400 metres east of Susan and Liz, but on the eastern side of Peter Meadows Creek.

A photograph taken of Georgie by a bushwalker showed a severe injury of the forearm.



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Read about our local koalas online in Robert Close's blog.

Unfortunately, our searches failed to find her until the same caller reported this week he had found Georgie's decomposing body.

Inspection of the skeleton revealed teeth marks in the skull, a broken lower jaw, and an elbow so arthritic the bone was quite brittle.

We suspect that Georgie suffered a fall which further damaged the arthritic arm, and a dog then killed her. Such a death, however savage, is the norm for sick and injured native animals.

Please report koala sightings on the UWS koala pager, 9962 9996.

Skull reveals bite of past

Leafy luxuries leave clues in the teeth

418170

By Robert Close and Tristan Lee

IT may sound a bit ghoulish, but whenever a koala dies, be it tagged or untagged, we prepare the skull to be a museum specimen.

Preparation involves packing the skull with moist sugar cane mulch into a plastic flower pot, that is set into soil, and waiting for several months.

An amazing collection of tiny organisms then remove all the soft tissue. After a quick wash in bleach, the skull is dried, labelled and sent to the Australian Museum in Sydney.

Our collection now includes more than 100 skulls and will be available for study for evermore. Skulls from the tagged animals, of course, are the most valuable because we usually know how old they are, where they lived and who their relatives were.

Knowing their ages is important because we can examine the wear on the teeth and develop a graph showing wear on one axis and age on the other.

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When an animal of unknown age appears we can then estimate its age from the wear on its teeth.

Such a graph has already been prepared by other scientists, but when we applied the measurements from our known-age skulls to their graph, the predicted age for our older animals was always under-estimated.

That is, there is less wear on the teeth of our Campbelltown animals than on the teeth used by the scientists to make their graph. Can this problem be explained by differences in the diet of the two groups of koalas?

If the favoured leaves at Campbelltown were softer and easier to cut and crush, then the amount of heavy chewing would be reduced and the wear would be less.

We have, in fact, a skull of a koala of known age that was raised in a zoo. Its predicted age from the graph is greater than its actual age,



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Read about our local koalas online in Robert Close's blog.

implying that the leaves it was given require more chewing or were more abrasive than leaves it would choose itself in the wild.

We have recently prepared the skull of Amanda, the 15-year-old koala from Peter Meadows Road that died recently from cancer of the spleen. Although her teeth were not unduly worn, she had severe gum disease such that the roots of the molar teeth were almost completely exposed. Chewing must have been incredibly painful and inefficient.

Please report koala sightings on the UWS koala pager, 9962 9996.

Amica visits school kids

By Robert Close and Tristan Lee

JULY is an active month for male koalas and our old friend, Amica, appeared recently at St Helens Park Primary School.

The last time we saw Amica he'd lost an eye in a fight and after several weeks' recovery at the University of Sydney's Wildlife Health and Conservation Centre, was released in Spring Creek, about one kilometre from where he was seen last week.

The worry is that he may have been pushed out of Spring Creek by a two-eyed male, perhaps the one who won the earlier fight. If so, residents along Kellerman Drive may see Amica again shortly.

■ Another call took us to a Buddhist retreat in Minto Heights where a small koala joey had appeared looking rather forlorn after the big storm last week.

Named Maitri by her finders, she weighed only 1.4kg which is too light to be on her own. By contrast, Sirius, who had appeared in similar circumstances in January, weighed 1.8kg. At that time we were able to locate Sirius's mother and return him to her suc-

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cessfully. Unfortunately we were unable to find Maitri's mother and the young koala took a turn for the worst.

Kate Ryan, koala co-ordinator from South West WIRES (0415 957 383), then spent all night trying to save her but Maitri was too ill and she died at 4am.

A post-mortem examination revealed slight concussion, and pneumonia so severe that one lung was totally non-functional. We assume that Maitri initially fell from her mother's tree and the pair became separated. Maitri was then unable to maintain body temperature and developed the fatal lung infection.

■ Another young koala also left its mother this week. This was Charlotte's unnamed and untagged joey who we have been trying to catch for some weeks now as the pair have moved through the connected Stromlow, James Ruse and Cook reserves.

Charlotte was seen on Sunday in adjacent Talbingo Place but despite our searching, the



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Read about our local koalas online in Robert Close's blog.

joey had vanished. Later on Sunday we were called out to Stromlo Reserve, where we expected to find the missing koala.

Instead we found Price, the mature male who now spends all his time in the reserve system. Then the next morning callers from Talbingo Place reported that Charlotte and joey were together again. How they communicated with each other while separated is a mystery.

Please report koala sightings on the UWS koala pager, 9962 9996.

Tricky job keeping track

18/8/10

By Robert Close and Tristan Lee

TWO of our research aims have been to study young koalas when they leave their mothers and determine how the break occurs.

That is, do the mothers deliberately force their large offspring to move away or do the youngsters go of their own accord?

Then once the youngsters separate, do they settle close to their mothers or do they travel to find a new territory?

These questions are important because if they stay close then the same male is more likely to mate with both mother and daughter. This can then lead to inbreeding.

If they move, however, then inbreeding is avoided and unoccupied habitat is more likely to be settled.

Therefore, the better strategy for koalas, in general, appears to be for the young to move away.

On the other hand, moving away takes the youngster from its familiar area that has all the required resources and into potential dangers of cars and dogs and unsuitable habitat.

So for the past few weeks we've been fol-

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lowing Charlotte and her almost-independent joey.

Last Sunday week Charlotte was alone in Talbingo Place but, by Monday, the pair were reunited.

Since then Charlotte has moved 700 metres to the reserve overlooking the rear car park of St Thomas More Catholic Church in Acacia Avenue.

Again, the joey could not be seen but by the following day it was sharing the same tree as its mother.

It's tempting to think Charlotte is trying to move away from the joey which is somehow tracking its mother.

It may not be a coincidence that Charlotte was last seen with her previous joey, Curls, in the same site beside the church.

Curls then set off on her travels, which led her back and forth across Airds and St Helens Park and to her eventual death on Appin Road.

What will the new joey do?

We won't know unless we can identify it by



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Read about our local koalas online in Robert Close's blog.

placing an eartag in each ear and unfortunately Charlotte and the joey have always been in trees, making it too difficult to attempt a catch.

Time is running out because we fear that the pair will soon be permanently separated.

So we're asking for people living in the area to keep a look out.

Remember, if a call results in the joey's capture then the caller earns naming rights!

Please report koala sightings: UWS koala pager, 9962 9996.

Case of mistaken identity

Teddy bear sent for a koala autopsy

25/9/10

By Robert Close and Tristan Lee

LAST week we received an interesting call about a "dead koala" in Minto Heights.

We are interested in finding dead koalas because we can learn about their cause of death, the state of their teeth, their ages and why they died. If they are ear-tagged they can also provide details on their movements.

On this occasion, the caller was walking his dog and came across it under a tree. He then tracked down our pager number, reported the sighting and kindly offered to lead us to the koala. Accordingly we were led to the site and collected the body for an autopsy.

Selected excerpts from the tongue-in-cheek autopsy report are included below:

"This is a full-sized koala that has clearly been in the bush for a long time. The finder said that it had been there for at least two days but from its soggy nature and dirtiness it was most likely longer. This is a most unusual koala in that it has a normally shaped head but no nose or mouth. It also had the unusual

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feature of having a fifth leg. There were extensive suture lines on all limbs and around the periphery of the animal but no associated haemorrhage or bruising was noted. Genitals and the anus had either been removed or not ever present. Internally, the animal was full of foam.

"Diagnosis: Facial and genital aplasia.

"Weathering: Normal to slightly increased stuffings.

"Final diagnosis: *Teddy bearosis.*"

OK, we're making a joke of this event in which a home-made stuffed toy was mistaken for a dead koala but it's an easy mistake to make. The caller did not want to disturb the body which was lying on its front. Being wet and bedraggled it looked exactly like a dead koala. The incident reminds us of an earlier occasion when we climbed a tree to rescue what we thought was a burned koala only to find it was a toy wombat!



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Read about our local koalas in Robert Close's blog.

THE story of the separation of Charlotte and her joey continued this week with the pair found about 150 metres apart in Acacia Avenue in Ruse.

As we write, a call has just come in to report that a koala has been found in nearby James Ruse Park.

This animal may be catchable.

After this column has been filed we'll investigate and record our findings for next week's column. See you then.

Report koala sightings: UWS koala pager, 9962 9996.

Our population's thriving

1/9/10

By **Robert Close** and **Tristan Lee**

KOALAS were busy last week.

First, there was the sighting in Acacia Avenue, Ruse that we confidently expected to be Charlotte's one-year-old cub.

It was in a catchable position in a camphor laurel, and within reach of our flags, so we soon had it in the bag.

However, it was a two-year-old and, therefore, not Charlotte's cub.

Named "Bernie" by the original spotter, her pouch was empty but expectant.

On the same day we were called to a sighting beside Smith's Creek only 50 metres from busy Pembroke Road across from Wests Leagues Club.

This turned out to be Price, who roams widely across Ruse and Leumeah, regularly crossing Junction Road. He may be father to both Charlotte's cub and Bernie.

Our next call was to the small parking area on the south side of Wedderburn causeway.

This is a popular spot for koalas.

Here we found a female nursing a large cub.

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Her tags identified her as Martine, who was originally captured at the same spot when she was two years old, in October 1998.

That makes her 14 and still breeding.

We know a lot about Martine as she wore a radio collar for several years.

However, we removed the collar two years ago because her territory is very steep and rugged which made tracking and recapturing very difficult.

So we were pleased to see her again.

Although Wedderburn gorge is a black spot for koala roadkills, it is amazing that Martine has, like Price, been able to survive.

As if to emphasise the danger, a few days later another caller rang to report two koalas on the same road, one by the causeway and the other by the fire warning sign.

Yet another call came from Cuscus Place, St Helens Park, where a healthy two-year-old male was perched in a garden bush.

We soon had him ear-tagged and named



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Read about our local koalas in Robert Close's blog.

("Lindsay") before releasing him in nearby bushland under the watchful eye of a young male wallaroo.

The week's activity demonstrates the breeding success of our koala population and shows we can expect more visits to our suburban gardens. Learn more about our koalas at an environmental heritage talk, 7.30pm, at Campbelltown Arts Centre on September 8.

Report koala sightings: UWS koala pager, 9962 9996.

Lindsay has disappeared

8/9/10

By Robert Close
and Tristan Lee

MAC KOALA

SINCE last Saturday week's capture and tagging of Lindsay in Cuscus Place, St Helens Park, he had moved by Wednesday 2.5km to a tree on the corner of Barnard Place and Kellerman Drive.

The original spotter reported that he thought the koala was not well, perhaps hit by a car or attacked by a dog.

We attempted to flag him down so that we could examine him for injuries and move him to a safer place.

Lindsay, however, had other ideas and attacked the flag with gusto. He thereby demonstrated to us that all his limbs were functional, so we decided that it would be best to leave him in the tree and let him move of his own accord in the evening.

He stayed there till after 10pm, entertaining local residents and students from adjacent St Helens Park Primary School. He

vanished during the night and we have had no reports of him since.

We are anxious to hear from him because his plotted path has followed that of Curl's last few weeks before she was killed on Appin Road.

■ Another caller reported koalas bellowing from Smiths Creek behind Ruse Primary School, while a truck driver found two koalas 500 metres apart near the Bargo exit on the F5.

Apparently, another driver picked one of them up. This is a potentially dangerous action. We have heard reports of motorists who have picked up stunned koalas only to have them recover and damage the interior of the vehicle.

■ Finally, a caller reported a koala from Darling Avenue, Ruse. Darling Avenue starts as a fire-trail near the banks of the Georges River, then becomes

bituminous from Georges River Road to just north of Old Kent Road. There it becomes a fire-trail once more and continues to Junction Road. It marks the line between bushland and suburbia and several tagged koalas live beside it and are often sighted by residents.

Unfortunately, it also marks a section of the path of the Parkway, a road that was planned to run from Liverpool to Appin.

It is apparently still on the books, although its importance to koalas may help prevent it from ever being constructed.

■ Tristan will be talking at the Campbelltown Art Centre at 7.30 tonight (September 6) on his fascinating findings about our koalas from the study of their DNA.

Please report koala sightings on the UWS pager 9962 9996.

Price on the move again

By Robert Close
and Tristan Lee

A MALE koala called Price has recently made an impressive journey across Campbelltown.

Since we reported two weeks ago that he was beside Smiths Creek across the road from the Wests League Club on Pembroke Road, he's walked over 5km up Smiths Creek to Airds.

He may be looking for a mate as we enter the breeding season or simply finding a new patch of territory to call his own. Whatever the reason, he is clearly using Smiths Creek as a corridor to move through the built-up area.

Campbelltown is fortunate in having several such corridors spanning sections of the suburbs. These will allow movement of other mammals such as possums and gliders and also

birds across the city. Since Price was seen in Airds, a koala has been reported in Smiths Creek behind Ruse Primary School. The caller could not see ear tags, but the koala was high in the tree. So it may be Price has headed north again.

On the other hand, it may be an untagged, resident animal that is driving Price away. It is possible, therefore that residents in Airds will see more of Price in the near future. If so they should try to spot his coloured ear tags.

Please call the koala pager number below if you see him.

Since Lindsay was seen last week, possibly injured, in Kellerman Drive, we've had a report of a koala high in a tree near St Helens Park Primary

School. We hope it is Lindsay.

Charlotte was also seen, beside Georges River Road about 1km from where we last saw her with her cub. The cub has clearly left its mother and will be wandering about like its sister Curls did last year. As we have said many times before, we think the Campbelltown populations is expanding, and we therefore expect residents near bushland to come into contact with koalas with increasing frequency.

If everyone takes a few simple precautions and keeps an eye out for our koalas there is no reason the koalas can't coexist quite happily alongside people.

Report koala sightings on the UWS pager 9962 9996.

Price is bright

If you think koalas just sit around all day lazily eating leaves, you haven't met Price.

This wily marsupial has impressed local researchers with an impressive journey across Campbelltown – from near Wests Leagues Club at Leumeah to Airds in a fortnight. Read all about it in our weekly column on page 86.

15/9/10

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MAC KOALA

Campbelltown Macarthur Advertiser, Wednesday, September 22, 2010

Note:

No column published on this date

Koala sightings will rise

By Robert Close
and Tristan Lee

MAC KOALA

IT'S been a busy week and we'd like to begin by thanking the large number of callers we've had recently.

Unfortunately, several of our usual members have been away on holidays and we've been unable to attend to all calls.

But all sightings are recorded and the information is used in our ongoing local Koala research.

Of particular note, we've recently had a few sightings of koalas crossing Georges River Road near Airds and Smiths Creek.

Our thanks to the callers who have reported these sightings.

We're not sure if it's the same koala being seen each time or if there are two koalas in the area.

Fortunately, we have not yet had a report of the koala(s) being

hit by a car. Georges River Road is a busy road so we're asking drivers to be cautious when driving, particularly around Smith's Creek and the bus depot, where the road becomes Broughton Street.

A koala was almost hit last week and we thank Ms Colfack for stopping and shepherding it safely across the road.

It is actions like this that help in the safety and preservation of our koalas.

As we have said before, our research indicates the population could be expanding and we expect interactions with koalas to become more frequent.

It's important the local community play an increasingly active role in helping what is the Sydney region's most important

koala population. In our last column we mentioned a koala called Price and talked about his movements.

Readers may remember he was found on Pembroke Road, across the road from Wests Leagues Club.

He may have been looking for a mate as we enter the breeding season or he simply may have been finding a new patch of territory to call his own.

Price was also seen in Acacia Avenue.

He has clearly been very active lately and has covered a lot of ground and using Smiths Creek as a corridor through the built-up area.

Report koala sightings on the UWS page, 9962-9966.

Above all else, do no harm

6/10/10

By Robert Close
and Tristan Lee

MAC KOALA

THE koala pager continues to get busier, particularly after sightings around Smiths Creek and Airds.

We have had a mixture of tagged and untagged animals from Smiths Creek, which is good to hear because it shows there are still koalas in that area that haven't been seen and tagged yet.

A recent sighting of an untagged animal was towards the end of Smiths Creek Reserve heading towards Wests stadium.

It is encouraging to hear there are koalas moving around this far into suburban areas, and further highlights our message that residents of Leumeah, Airds, Kentlyn, etc will most likely come into more frequent contact with koalas.

We do want to continue to receive reports of sightings.

But we do ask people to understand that in most cases there is no action required.

We make records of all sightings that go towards helping us learn about the koala population.

But we generally do not like to catch and move the koalas unless they are in danger, for example if they are right next to a busy road or under imminent threat from dogs.

Koalas are generally able to live quite happily on the fringes of suburbia.

If we receive a call and decide not to catch and move the koala, please don't interpret this as a sign we don't care.

We can't – and indeed don't want to – catch and remove every koala in an urban area.

We try to interfere as little as possible.

A koala is a wild animal.

If it has chosen to move into a suburban front or backyard, we generally have to learn to live with that, and indeed enjoy the fact there is a koala on our property.

If we think the koala is in danger or in an area it shouldn't be, we will attempt to catch and move the koala.

In some cases, attempting to catch a koala is more dangerous to the koala than leaving it in a seemingly inhospitable urban environment.

Please continue to call our pager and alert us to sightings.

But please also remember that in most cases the best course of action is to leave the koala alone.

Report koala sightings on the UWS pager, 9962 9996.

Animals are on the move

13/10/10

By Robert Close
and Tristan Lee

MAC KOALA

KOALAS seem to know when our research unit is short-staffed and respond by appearing across the Sydney basin in considerable numbers, thereby putting pressure on our volunteers (35 calls to the pager in the past month).

In this case, the shortage was caused by Robert spending three weeks in Western Australia, one of the three states and one territory that don't have natural populations of koalas.

Incidentally, WA also lacks the common wombat although the southern hairy-nosed wombat is found just within state boundaries on the Nullarbor Plain.

Three non-local reports of koala sightings came in, one from "Lowlands" on the southern bank of the Hawkesbury-Nepean River near Richmond, one from the police at Wollongong and another from a motorist of a road-killed koala on Woronora Bridge. We

were unable to verify the latter. Closer to home, two male koalas were seen in the same tree at Long Point. One of the males was seen hanging by his hind-legs. This unusual performance probably arose after a fight in which the superior male drove his opponent to a precarious position from which the vanquished male could only jump, fall or cling on in the hope that his pursuer would retreat.

Both animals had vanished by the next morning. Two other koalas, probably males, were also reported in the same tree at Minto Heights from a property where a tagged female, Debbie (the daughter of Amanda), has lived for the past seven years.

Then two koalas were reported from near the corner of Junction and Georges River roads.

One was tagged and proved to be Jemima (the daughter of June,

who lives in the Russian retirement village at Kentlyn, and the grand-daughter of Shirley, the late matriarch of a large family of koalas at Kentlyn).

We last saw Jemima more than a year ago, when she was still with her mother. Since then she has moved almost two kilometres, passing by her grandmother's old territory on the way.

She, like Curly before her, will be trying to establish her own territory and is likely to pass through Airds or head for Smiths Creek. As usual, keep an eye out for her on the roads and be aware of unusual barking from local dogs.

Other calls came in from Ruse, St Helens Park and Appin Road and a young untagged male was captured at Wedderburn.

Report koala sightings on the UWS pager: 9962 9996.

Appin Road takes its toll

By Robert Close
and Tristan Lee

LINDSAY the koala almost made it to the safety of Noorumba Reserve, just south of Rosemeadow, but was killed by a vehicle on Appin Road.

He had come 2.5 kilometres since we tagged him in Cuscus Place, St Helens Park in early September this year.

A week after tagging, he entertained the students at St Helens Park Primary School from a tree in Kellerman Drive, but was not reported during the six weeks before his death.

His path was almost the same as Curls, who also died on Appin Road. We need another koala warning sign at the Rosemeadow end of Appin Road.

Another roadkill was also reported, this time from Picton Road, east of Wilton.

We know very little of this population.

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■ On a happier note, a tagged, male koala was seen near the Holsworthy Army Barracks.

Unfortunately, the caller saw only one tag so we can't be absolutely sure who he is.

There are five candidates with an orange tag in the left ear: Greening, Newman and Jack, from Kentlyn, Varroville from Ingleburn, and Gorilla, who was originally captured in 2007 beside Moorebank Road, Holsworthy.

It would be ironic if it turns out to be Gorilla because we moved him from Moorebank to Kentlyn thinking it would be safer for him.

No matter which koala it is, it's made a long, hard trek but faces the traffic of Liverpool if it goes any further.

Another interesting report was of a young untagged male in a tree outside Airds High School.

A week later he was outside the Reiby Correction Centre.

It's amazing he can live in such vulnerable conditions and be seen only twice.

Three days after the first sighting, however, a koala was reported from Canberra Crescent about one kilometre from the high school.

It is possible, therefore, that he's been travelling back and forth.

No doubt we'll hear from him again.

■ On a different biological note, Australian Museum entomology curator Dave Britton will give a talk, "Small bugs are beautiful bugs", at Campbelltown Art Centre on Saturday, October 23 at 2pm.

Report koala sightings on the UWS pager: 9962 9996.

Project a great success

By Robert Close
and Tristan Lee

WE WERE delighted to receive a report of three untagged koalas – a female, a joey and a male – beside Mansfield Creek, a tributary of the Georges River, at the eastern end of Cameron Place, St Helens Park.

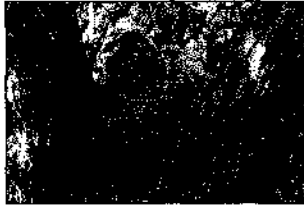
These sightings extend our records of breeding females south along the Georges River towards Appin.

We conducted surveys of the area years ago searching for koala scats, but failed to find any. Long-term readers of this column will remember our project conducted since 2006 with a Landcare group at Tarlo River National Park, near Marulan in the Southern Highlands.

The program was to plant bush-land corridors to encourage koala movement and re-establishment, in conjunction with the translocation of young radio-collared koalas from Campbelltown.

The roles of the three animals were to demonstrate that koalas could survive and breed in the

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area, lead us to optimal koala habitat, show us what eucalypt species are favoured in the area for food, provide information on how young koalas move and establish new territories and to provide the nucleus of a new, reserve population.

In addition, we anticipated that if a remnant population of koalas survived in or near the park, then our radio-collared koalas might lead us to it. The project has been a great success, providing valuable, positive information.

Only one of the three koalas, Melissa, still retains her radio-collar and she will be recaptured on November 7 to replace the collar and to inspect her health,

and to weigh, measure, eartag and establish the gender of her new joey, Alex (pictured). Alex's father is definitely a local male because Jeremy, the Campbelltown male, was in a different part of the park at the time for mating.

Our research has shown therefore, that even when the koala density is very low (none reported since 1970s), that koalas are still capable of finding a mate.

We now wish to supplement the genetic health of the fledgling Tarlo River population by adding to young, endangered koalas such as Curls and Lindsay, who were unable to find a permanent territory before their deaths on Appin Road.

Our NPWS licence stipulates strict requirements before a koala can be moved. Five animals are listed in the licence, but we anticipate that three is a more likely number.

Report koala sightings on the UWS pager: 9962 9996.

Rivalry expected as new Harry makes his move

By Robert Close
and Tristan Lee

3/11/10

MAC KOALA

WHEN the call came about an untagged koala was in a tree opposite Riley Park in Riverside Drive, Airds, we thought it likely to be the same that we'd seen recently outside Airds High School and Reiby Detention Centre.

We needed to catch the koala to fit it with eartags so we could follow its movements with more certainty.

Fortunately, the koala was just within reach of our six-metre flagged pole. So with the help of Harry, a local resident, we soon had the koala in the bag.

It was then inspected, weighed, measured and eartagged and found to be a "teenage" male, aged 3 to 4 years, weighing in at 8.65kg and in excellent condition. Naturally he was given the name Young Harry.

The decision now had to be made about what to do with him.

If we left him beside Riverside Drive he would be in danger from cars and from the dogs in nearby houses.

Although the nearest bushland was only 500m away beside the Georges River we considered that a safer release site was 1.5km further north.

Usually we don't like to move animals but as Harry appeared to be roaming rather aimlessly we felt our decision was for the best.

However, the next day at 8am a caller reported a koala with a cub at the junction of Riverside Drive and Georges River Road but by 9am it had gone.

A third piece in the puzzle came when another caller reported a big tagged male (Price) in Smiths Creek Reserve near Ruse Primary School.

So within 1.5km of each other we had two males and a female.

This is unlikely to be a coincid-

ence given that we're now in the peak period for koala mating. So Harry was unlikely to be roaming aimlessly as we'd predicted.

It's probably safer for Harry to be away from the action as Price outweighs Harry by 2kg.

Unfortunately Harry is unlikely to agree and we're betting on his swift return to the fray.

■ Robert Close will celebrate the 15th anniversary of these *Mac Koala* columns at the final evening for 2010 of the Environmental Heritage series at Campbelltown Arts Centre on Wednesday, November 10, at 7.30pm by reminiscing on funny and enlightening incidents then reflecting on the wider importance of the study. Everyone welcome.

Report koala sightings on the UWS pager: 9962 9996.

Cub Alex a tricky catch

10/11/10
10/11/10
By Robert Close
and Tristan Lee

MAC KOALA

LAST Sunday we changed the radio-collar of Melissa, the former Campbelltown koala that we had translocated 100 kilometres south to Tarlo River National Park two years ago.

We also wanted to put identifying ear-tags on her new cub, Alex, and to discover whether it should be called Alexander or Alexandra.

We found them in a tree just within reach of our longest flagged pole. All went well for a start as Melissa climbed methodically down the tree but just before we grabbed her, the joey leapt off her back and raced back to the top of the tree.

When we then attempted to flag the joey down, it grabbed the pole and using it like the pole in a fire brigade station slid down towards us. In the last few metres, however, it left the pole and dropped. Fortunately Tristan

was ready for it and caught it as neatly as a wicketkeeper taking a catch behind.

Alex turned out to be Alexandra and weighed in at 1.1 kilograms, healthy but a bit light.

She probably won't leave her mother till she weighs well over 2 kilograms. Hopefully some warmer weather will stimulate leaf growth and she'll now grow quickly.

■ On our return from Tarlo, a message was waiting for us to report a koala beside the baseball park and leash-free area off Kellerman Drive at St Helens Park.

We found it in a small but heavily vegetated gully a few metres inside the black security fence that marks the perimeter of a proposed development site.

Close inspection with binoculars revealed a pink ear-tag in the right ear and a blind right eye that identified it as Amica. He is an

adult male that on two different occasions has spent time at Sydney University's Wildlife Health and Conservation Centre at Cobbitty.

The first visit was for removal of a damaged "finger" and the second for removal of a punctured eye. Perhaps we should change his name to "Lord Nelson" or "Horatio".

He's been out of trouble now for several months and has survived, so far, the breeding season's battles with other males. So perhaps, at last, he's found a safe niche. If so, visitors to the park may see him regularly. ■ Remember the talk on "Campbelltown koalas: tall tales and true" on tonight, November 10 at Campbelltown Arts Centre, 7.30pm.

Report koala sightings on the UWS pager: 9962 9996.

Desperately seeking Susan

By Robert Close
and Tristan Lee

MAC KOALA

SIRIUS Street at Ruse runs parallel to both the edge of the bush on the eastern side and a koala corridor that joins James Ruse and Cook reserves on the western side.

Koalas can enter the street from either end, by several walkways or crossing backyards. In recent years residents have reported many koala sightings from Sirius and adjacent streets.

Responding to a call this week, we found a koala in a large eucalypt that we were unable to identify immediately.

It's possible that part of the apparent attraction of suburban gardens to koalas is the variety of eucalypt species available from the planting of non-local species.

Koalas apparently can continually eat one species only until the toxin build-up reaches a particular level. The koala must then turn to a different eucalypt

species with a different range of toxins. The more species available for the koala to eat, the lower the levels of individual toxins the koala needs to eliminate.

Gardens are also more likely to be better watered and fertilised than the bush, so the leaves would carry more water and nutrients.

In addition, the trees' need to produce toxins to combat insect leaf-eaters would probably be less because the trees would be able to respond to attack merely by producing fresh leaves.

We spotted a pink tag in the koala's left ear, but the right ear remained obscured by foliage and fur.

Unfortunately we have several koalas on our books with a pink tag in the left ear.

We ask all residents who live near the northern end of Sirius

Street to inspect their trees' foliage for a koala and the bases for their distinctive faecal pellets (they look like plump olive pips).

We are especially interested in identifying this animal because the most likely contender is Susan. She has been seen several times in neighbouring streets over the past few years. The most recent sighting was in a backyard where three dogs had baled her up overnight.

Despite being inspected by a local vet and given the all clear, she was not moving completely freely on release and we've been concerned that the dogs had inflicted more damage than was apparent from the inspection. So if we could verify that the animal is Susan, our minds would be set at rest.

Report koala sightings on the UWS pager: 9962 9996.

They've always been here

24/11/10

By Robert Close
and Tristan Lee

MAC KOALA

READERS of this newspaper know we think the Campbelltown koala population is healthy and expanding.

Evidence for this belief includes the statements from many long-term residents they had never seen koalas till relatively recently.

For example, a resident from Exley Road, Wedderburn, reported a large koala on his property last week: the first he had seen at Wedderburn in 30 years' residency.

There is a chance, however, that the koalas have always been in Campbelltown and just not observed, because of their cryptic nature.

Or they were not reported because the observer either did not know that the sighting should be reported or didn't know who to report it to.

In this regard, one resident

from Ruse reported that as a lad, 20 years ago, he had discovered a dead koala in Smiths Creek.

An even earlier report came from David Homer who recalled finding koala droppings at Cook Reserve in the 1950s when he was a boy.

Cook Reserve is separated from Smiths Creek Reserve by Junction Road and is now a favoured site of our ear-tagged male, Price, who wanders across Ruse via the networks of creeks and reserves.

Interestingly, David reported that he never saw a koala in the flesh until much later.

In fact, David was the first to report koalas at Wedderburn and it was his observational skills that led to the recognition of the importance of the Wedderburn population.

In contrast, there have been

many recent calls about koalas in or near Smiths Creek, the latest being of a koala bellowing this week in Wyangala Reserve, Leumeah.

This reserve is a well-used corridor for koalas linking Smiths Creek with Minto Heights.

We would like to document evidence of early sightings and so would like to contact by email (r.close@uws.edu.au) anyone who has lived in or near Campbelltown's koala areas for the last 30 years.

Leave your name, address, period of residency and date and locality of any koala sighting you can recall. Title emails "30 year koala sightings".

We also want to know if you have never seen a koala in that period.

Report koala sightings on the UWS pager: 9962 9996.

Helen's a big, healthy girl

By Robert Close
and Tristan Lee

1/12/10

MAC KOALA

KOALAS were active at St Helens Park last week.

First we were called to a house near the corner of Kellerman Drive and Cameron Place, beside Mansfield Creek, where a koala was perched on a Colorbond fence with two dogs on each side.

With the help of the residents we soon had it bagged and weighed.

Its weight (9.6kg) suggested that it was a male but closer inspection indicated it was an enormous female, now named "Helen".

Why would such a robust female come out of the bush where she was clearly doing well?

We were concerned she might be following the same dispersal route that led both Curls and Lindsay along Mansfield Creek to their deaths on Appin Road.

So we fitted Helen with a radio-collar and released her well into the bush east of Cameron Place.

If she continues to move through housing areas towards Appin Road, we will nominate her to National Parks and Wildlife Service for translocation to the safety of Tarlo River National Park where she would join our three other translocated animals.

Our second call-out to St Helens Park was to examine a koala that had almost been hit by cars on Woodland Road beside Pinnaroo Reserve.

By the time we arrived, the koala was high in a tree and not catchable.

However, with the help of keen-eyed local kids, Jade, Chrystal, Josh, Damon and Neil, we discovered the koala had a green tag in its right ear.

Unfortunately, we could not be positive about the colour in the left ear so we can't be certain about its identity.

The most likely contender is young Harry who we had caught and tagged three weeks ago at Riverside Drive, Airds.

If so, he is certainly following the path that Curls and Lindsay took on their way to Appin Road.

On the topic of Appin Road, a caller has just reported, as we write, a young, dead koala from the southern end.

Koala data is scarce from this area so we'll collect and examine the body.

Please report all koala sightings to the UWS pager 9962 9996. Could Alan Trundell please repeat his call, the pager company recorded an incorrect telephone number and we've been unable to respond.

Identity is still a mystery

By Robert Close
and Tristan Lee

8/12/10
P. Lee
2010

MAC KOALA

LAST week, a koala we thought was Young Harry was seen crossing Woodland Road, St Helens Park.

A few days later, it was seen near The Parkway, Bradbury. It will be fascinating to discover where it will go next.

Our guess is that it will spend a few days in Quirk Reserve, so we ask residents to keep an eye out for him.

A giveaway sign that a koala is in an unusual place is that birds, particularly crows and cockatoos, will attack it. The birds think it's a nest-raiding carnivore.

Where koalas are relatively common, however, the birds accept them quite happily.

From Quirk Reserve, the koala may follow Fishers Ghost Creek towards Bradbury Reserve or follow Akuna

Avenue down to a narrow corridor which leads north-west past Airds High School to Smiths Creek. We are becoming more and more aware of how our koalas are using narrow corridors to move through the city.

There is still doubt that the koala is Young Harry because we have been unable to identify the colour of the tag in its left ear. So if anyone should spot the koala, please check the colour. The tag consists of two plastic pieces connected by a short shaft, so that one piece hangs down in front of the ear while the other piece hangs down behind. Theoretically, the tag should be visible from either side. However, the ears are so hairy that it is often difficult to see the tags, particularly if

the koala is sleeping curled up in a tree fork.

■ We had no problems plotting the movements of the large female, St Helen, that we reported from Kellerman Drive last week, because we fitted her with a radio-collar before releasing her beside Mansfield Creek beyond Cameron Place.

She stayed two nights there before climbing a chain-link fence that surrounds bushland the owner hopes to convert to housing. She has remained within the fence and spent three days within 100 metres of where Amica, blind in one eye and missing one finger, was seen three weeks ago. St Helen has since moved 300 metres to a huge ironbark where she has spent the past two nights.

Please report all koala sightings to the UWS pager 9962 9996.

Young Harry copped this

15/12/10

By Robert Close
and Tristan Lee

LAST week we reported that Young Harry had moved from Woodland Road in St Helens Park to The Parkway, Bradbury.

But we said we'd seen only one ear tag (blue) and consequently were not sure of our identification.

Later that day at 11am, a koala with blue and green ear tags held up traffic as it crossed Woodland Road from Bradbury. It turned out to be Jemima, daughter of June (late of Kentlyn Primary School) and granddaughter of Shirley (late of Darling Avenue South).

Jemima has travelled 6km (as the crow flies) since leaving home and with diversions such as her tour of Bradbury, she has probably travelled considerably further.

After crossing Woodland Road, Jemima spent several days in trees

MAC KOALA

behind the row of houses that adjoin Spring Creek Reserve.

It is probably not a coincidence that our radio-collared resident of Spring Creek, Courtney, was only 200m away. We suspect she was advertising that the site was occupied.

Jemima's next moves will be crucial.

If she stays in the bush, she'll confront resident females but if she leaves the bush she, like Curts and Lindsay, will face Appin Road.

On the southern side of Spring Creek, St Helen also appears to be a resident.

Readers will remember that when we first mentioned this animal two weeks ago she was just plain "Helen" but by last week had been upgraded to "St Helen". This proved necessary with records showing we already had a "Helen" on our books from 2002.

St Helen is radio-collared and has been moving around a proposed development site.

We had examined this site in vain for signs of breeding koalas 10 years ago when Landcom tried to develop it.

We told the Land and Environment Court at the time that the site contained good koala habitat and we felt that it was only a matter of time before females occupied it.

St Helen is demonstrating just how difficult koalas are to spot on the site.

Even with the help of the radio-tracker, we've been able to find her only three times out of 10 attempts.

This will be our last column for the year, but we'll still run the pager.

We thank everyone who has contributed to the program and wish you all a fine Christmas and a happy New Year.

Please report sightings on the UWS pager 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, December 22, 2010

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, December 29, 2010

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