

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 2. 2000—2005



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 2000 - 2005

Date	Article Name	Author
28/12/2005	No article	
21/12/2005	New laws will aid protection	Robert Close
14/12/2005	Students attend science school	Robert Close
7/12/2005	They're breeding like...	Robert Close
30/11/2005	Mystery of females going walkabout	Robert Close
23/11/2005	Latest cub now named Mushka	Robert Close
16/11/2005	Death of cub	Robert Close
9/11/2005	A duty to be after a cub's death	Robert Close
2/11/2005	Fatal fall? One little cub no longer in the treetops	Robert Close
26/10/2005	Students spend damp day tagging along track	Robert Close
19/10/2005	Rein in Rover: Danger dogs koala cubs	Robert Close
12/10/2005	Some koalas known	Robert Close
5/10/2005	No article	
28/09/2005	Stray koala gets Courtney act	Robert Close
21/09/2005	Ouch! It ain't easy catching a beast	Robert Close
14/09/2005	Untagged koalas spotted a long way from home	Robert Close
7/09/2005	Road kill plea	Robert Close
31/08/2005	Collar project in need of help	Robert Close
24/08/2005	Mother, cub encounter thrills Japanese Visitors	Robert Close
17/08/2005	Nomadic koala males turn up safe and sound	Robert Close
10/08/2005	Camouflage theory spotted	Robert Close
3/08/2005	Please drive carefully in the lusty months ahead	Robert Close
27/07/2005	Mining damage repairs	Robert Close
20/07/2005	Bridal creeper chokes off native bushland	Robert Close
13/07/2005	Habitat drains away	Robert Close
6/07/2005	Rats, a possum	Robert Close
29/06/2005	Bush care this Saturday	Robert Close
22/06/2005	Water supports mother and joey	Robert Close
15/06/2005	No article	
8/06/2005	Shirley dies in native habit	Robert Close
1/06/2005	We always hurt the one we love	Robert Close
25/05/2005	Creek a koala favourite	Robert Close
18/05/2005	Elle's young son bobs up for Mother's day visit	Robert Close
11/05/2005	When thrill turns to sadness	Robert Close
4/05/2005	Turn on, tune in and drop out...	Robert Close
27/04/2005	Bushland our heritage bond	Robert Close
20/04/2005	How koalas bear similarity	Robert Close
13/04/2005	Our bears are quite different	Robert Close
6/04/2005	Shirley has it in cubby hole	Robert Close
30/03/2005	Rescuers solve case	Robert Close
23/03/2005	Constable John is on the mend	Robert Close
16/03/2005	Will the real constable stand up?	Robert Close

9/03/2005	The search for treetop lumps	Robert Close
2/03/2005	Bird's-eye view of threatened habitat	Robert Close
23/02/2005	Plainly a big yarnout for ecology issue	Robert Close
16/02/2005	Rubish an eyesore in beautiful bushland area	Robert Close
9/02/2005	No article	
2/02/2005	No article	
26/01/2005	No article	
19/01/2005	Creek to be transformed from pipe to park	Robert Close
12/01/2005	Tags reveal sad end to Frank's Journey	Robert Close
5/01/2005	No article	

Date	Article Name	Author
29/12/2004	No article	
22/12/2004	100 koala stories waiting to be told	Robert Close
15/12/2004	A furry life can blossom from a pea in pouch to independence	Robert Close
8/12/2004	Sneaky June was there all along and toting her cub Vicky	Robert Close
1/12/2004	Zac points to Patricia sighting	Robert close
24/11/2004	Brittany spears up a grey box	Robert Close
17/11/2004	Spotted bears all over the place	Robert Close
10/11/2004	Lazy lizard too slow to escape	Steven Ward and Robert Close
3/11/2004	Scouting for cubs in the bush	Robert Close and Steven Ward
27/10/2004	Girl guides catch Lyn snoozing	Robert Close and Steven Ward
20/10/2004	Setting reserved for thr koalas	Robert Close and Steven Ward
13/10/2004	Off the radar: June is missing in action	Robert Close and Steven Ward
6/10/2004	Protection is good news for koalas	Robert Close and Steven Ward
29/09/2004	Few koalas enjoy life in the unspoiled bush	Robert Close and Steven Ward
22/09/2004	NO HEADING FOR ARTICLE (From high in his tree)	Robert Close and Steven Ward
15/09/2004	Newspapers recall the history battle	Robert Close and Steven Ward
8/09/2004	History of arboreal activists	Robert Close and Steven Ward
1/09/2004	Why koalas are notable	Robert Close and Steven Ward
25/08/2004	Watch out for Diprotodontids	Robert Close and Steven Ward
18/08/2004	Go lightly on bush	Robert Close and Steven Ward
11/08/2004	Bait cuts down wait	Robert Close and Steven Ward
4/08/2004	We have lost Louise	Robert Close and Steven Ward
28/07/2004	No article	
21/07/2004	Mysterious case of thirsty Louise	Robert Close and Steven Ward
14/07/2004	Nature's vacuum cleaners	Robert Close and Steven Ward
7/07/2004	Mining poses danger to river	Robert Close and Steven Ward
30/06/2004	River pipe dream back in full flush	Robert Close and Steven Ward
23/06/2004	Dogs blamed for death of wallaroos	Robert Close and Steven Ward
16/06/2004	Platypus search unsuccessful	Robert Close and Steven Ward
9/06/2004	Riverfest reminder of animal river home	Robert Close and Steven Ward
2/06/2004	Wombat killed but koala sighted	Robert Close and Steven Ward
26/05/2004	Keep your eyes open for koalas	Robert Close and Steven Ward
19/05/2004	Spotter discovers yet another koala	Robert Close and Steven Ward
12/05/2004	Strange snake ritual	Robert Close and Steven Ward
5/05/2004	Young male recovers from broken jaw	Robert Close and Steven Ward
28/04/2004	Downside to longevity for kids	Robert Close and Steven Ward
21/04/2004	Signs of danger for kids and their habitat	Robert Close and Steven Ward

14/04/2004	Two-faced river	Robert Close and Steven Ward
7/04/2004	Joey dies afte car scare rescue	Robert Close and Steven Ward
31/03/2004	Elusive marsupials	Robert Close and Steven Ward
24/03/2003	Koalas munch, people crunch	Robert Close and Steven Ward
17/03/2004	Callers report hawk sightings	Robert Close and Steven Ward
10/03/2004	Baza buzz on koala hotline	Robert Close and Steven Ward
3/03/2004	Wallaby kills investigated	Robert Close and Steven Ward
25/02/2004	Shirley is battling on	Robert Close and Steven Ward
18/02/2004	Two more wallabies discovered dead	Robert Close and Steven Ward
11/02/2004	Four mysterious wallaby deaths point to canine culprits	Robert Close and Steven Ward
4/02/2004	Animal dumping is a very serious problem	Robert Close and Steven Ward
28/01/2004	No article	
21/01/2004	Become a skilled koala spotter	Robert Close and Steven Ward
14/01/2004	Scouting for cubs and mums	Robert Close and Steven Ward
7/01/2004	New koala on the block	Robert Close and Steven Ward

Date	Article Name	Author
31/12/2003	No article	
24/12/2003	No article	
17/12/2003	Adventures with koalas	Robert Close and Steven Ward
10/12/2003	He could bear no more	Steven Ward and Robert Close
3/12/2003	Longhurst fund to pay for collars	Steven Ward and Robert Close
26/11/2003	Friends of bushland will be missed	Steven Ward and Robert Close
19/11/2003	Baring the name	Steven Ward and Robert Close
12/11/2003	Stuck up a palm tree	Robert Close and Steven Ward
5/11/2003	Young koala dead	Steven Ward and Robert Close
29/10/2003	Draw maps mentally	Steven Ward and Robert Close
22/10/2003	Nat's back after anxious year	Steven Ward and Robert Close
15/10/2003	Tree boost	Robert Close and Steven Ward
8/10/2003	No article	
1/10/2003	Big search first step	Robert Close and Steven Ward
24/09/2003	In the hollow of the mall	Robert Close and Steven Ward
17/09/2003	Give a hand to our cliff-climbing koalas	Robert Close and Steven Ward
10/09/2003	On the trail of the big cats	Robert Close and Steven Ward
3/09/2003	Rise and fall	Robert Close and Steven Ward
27/08/2003	Feathering nests with koalas	Steven Ward and Robert Close
20/08/2003	20 rare species disappear	Steven Ward and Robert Close
13/08/2003	Bearing it in spring	Robert Close and Steven Ward
6/08/2003	Keep a look out for koala on foot	Robert Close and Steven Ward
30/07/2003	Drive carefully through bushland	Robert Close and Steven Ward
23/07/2003	Cattle trample koala to death	Steven Ward and Robert Close
16/07/2003	Path plan on display	Robert Close and Steven Ward
9/07/2003	Out on the right path	Steven Ward and Robert Close
2/07/2003	Biked hit the breeding trails	Steven Ward and Robert Close
25/06/2003	Shirley's home has become a drain	Steven Ward and Robert Close
18/06/2003	Female is in the bag	Steven Ward and Robert Close
11/06/2003	Campbelltown's wildlife diversity	Steven Ward and Robert Close
4/06/2003	The thrill of spotting native animals	Steven Ward and Robert Close
28/05/2003	Tents for wombats	Robert Close and Steven Ward

21/05/2003	Numbers seem to be beating up well	Robert Close and Steven Ward
14/05/2003	Taggers were ready and able to get Abel	Robert Close and Steven Ward
7/05/2003	Local dogs killing koalas must stop	Steven Ward and Robert Close
30/04/2003	No article	
23/04/2003	Marly's short life valuable	Robert Close and Steven Ward
16/04/2003	Help after fire, drought, illness	Steven Ward and Robert Close
9/04/2003	Bewarw pets on the prowl	Steven Ward and Robert Close
2/04/2003	Elle is back with baby	Steven Ward and Robert Close
26/03/2003	Fertile bush the vital link	Steven Ward and Robert Close
19/03/2003	Glossy rescue: well done	Steven Ward and Robert Close
12/03/2003	Shooters alarm at Kentlyn	Robert Close and Steven Ward
5/03/2003	New koala discovered	Robert Close and Steven Ward
26/02/2003	Rare raptor spotted in Macarthur	Robert Close and Steven Ward
19/02/2003	Koalas out and about	Robert Close and Steven Ward
12/02/2003	Cockatoo shooter taken to task	Steven Ward and Robert Close
5/02/2003	Ageing Hugh expelled from colony	Robert Close and Steven Ward
29/01/2003	Species at risk needs help	Robert Close and Steven Ward
22/01/2003	Tim kicks Keven out of his home	Robert Close and Steven Ward
15/01/2003	Kevin looses his marbles in Kentlyn	Robert Close and Steven Ward
8/01/2003	It's time for cubs to leave the nest	Robert Close and Steven Ward
1/01/2003	No article	

Date	Article Name	Author
25/12/2002	No article	
18/12/2002	Newman returns to feast at Kentlyn property	Steven Ward and Robert Close
11/12/2002	Martine and cub back at Wedderburn	Steven Ward and Robert Close
4/12/2002	Elusive Nathan makes his getaway	Steven Ward and Robert Close
27/11/2002	Koalas can be difficult to catch	Steven Ward and Robert Close
20/11/2002	Koalas come to backyard	Steven Ward and Robert Close
13/11/2002	Great escape by Koala Hudini	Steven Ward and Robert Close
6/11/2002	At 11kg, Alan's the top koala boy	Steven Ward and Robert Close
30/10/2002	Mystery of koalas' fire escape	Steven Ward and Robert Close
23/10/2002	That number again 9962 9996	Steven Ward and Robert Close
16/10/2002	More koalas move towards the gorge	Steven Ward and Robert Close
9/10/2002	Wild adventures of Martine	Steven Ward and Robert Close
2/10/2002	Plea for details on sighting	Steven Ward and Robert Close
25/09/2002	No article	Steven Ward and Robert Close
18/09/2002	On the trail for koalas	Steven Ward and Robert Close
11/09/2002	Bushland's rich harvest	Steven Ward and Robert Close
4/09/2002	Bilpin proves a real handful	Steven Ward and Robert Close
28/08/2002	On the trail of an elusive koala	Steven Ward and Robert Close
21/08/2002	Kris not in the swim	Steven Ward and Robert Close
14/08/2002	Steve has sad ending	Steven Ward and Robert Close
7/08/2002	No article	
31/07/2002	Biologist keen on our fauna	Steven Ward and Robert Close
24/07/2002	Adventure of two koalas	Steven Ward and Robert Close
17/07/2002	Koalas eat trees to death	Robert Close and Steven Ward
10/07/2002	Season for frisky koalas	Robert Close and Steven Ward
3/07/2002	Search for platypuses	Steven Ward and Robert Close

26/06/2002	We must preserve Alex's wonderland	Steven Ward and Robert Close
19/06/2002	Koala in mad dash to safety	Steven Ward and Robert Close
12/06/2002	Tiger resurrection-devil of an idea	Steven Ward and Robert Close
5/06/2002	It's diprotodon mania	Robert Close and Steven Ward
29/05/2002	High costs in contact with koalas	Steven Ward and Robert Close
22/05/2002	Koala sac - nature's miracle	Robert Close and Steven Ward
15/05/2002	Mystery of a travelling koala	Steven Ward and Robert Close
8/05/2002	Preserve our wildlife	Robert Close and Steven Ward
1/05/2002	All at peace by the river	Steven Ward and Robert Close
24/04/2002	On lookout for platypuses	Steven Ward and Robert Close
17/04/2002	Game of tag with cute koala	Steven Ward and Robert Close
10/04/2002	Aiding the search for wallabies	Robert Close and Steven Ward
3/04/2002	No article	
27/03/2002	Along hard road	Robert Close and Steven Ward
20/03/2002	Not so cute, cuddly	Steven Ward and Robert Close
13/03/2002	Fox danger to native animals	Steven Ward and Robert Close
6/03/2002	Mother Shirley unmoved by TV	Steven Ward and Robert Close
27/02/2002	Sanctuary preserved at Saint Helens Park	Steven Ward and Robert Close
20/02/2002	Good news for animals	Steven Ward and Robert Close
13/02/2002	Keeping a close track on koalas	Steven Ward and Robert Close
6/02/2002	On the lookout for koalas in bushland regions	Steven Ward and Robert Close
30/01/2002	Survival rate is 'good'	Steven Ward and Robert Close
23/01/2002	59 ear-tad koalas are 'missing'	Steven Ward and Robert Close
16/01/2002	Brave koalas escape the flames from hell	Steven Ward and Robert Close
9/01/2002	Sad ending to adorable koalas	Steven Ward and Robert Close
1/01/2002	No article	

Date	Article Name	Author
26/12/2001	No article	
19/12/2001	Kindness to a hurt koala	Steven Ward and Robert Close
12/12/2001	Victor koala says G'day	Steven Ward and Robert Close
5/12/2001	A hair-raiser at the clifftop	Steven Ward and Robert Close
28/11/2001	Quiet on koala front	Robert Close and Steven Ward
21/11/2001	Koala at causeway	Steven Ward and Robert Close
14/11/2001	Bruce from Ruse amuses residents	Steven Ward and Robert Close
7/11/2001	Mixed bag in sightings	Steven Ward and Robert Close
31/10/2001	Koala link to the soil	Steven Ward and Robert Close
24/10/2001	Looked like it was in the bag	Steven Ward and Robert Close
17/10/2001	Bushwalkers find baby on track	Steven Ward and Robert Close
10/10/2001	Shirley gave vent to her feelings over capture	Steven Ward and Robert Close
3/10/2001	Toungster outwits uni team	Robert Close and Steven Ward
26/09/2001	Roaming dogs a danger to koala	Steven Ward and Robert Close
19/09/2001	Hey kids! Give me a Breyk	Steven Ward and Robert Close
12/09/2001	Here comes a crazy time	Steven Ward and Robert Close
5/09/2001	Protection for our two rivers	Steven Ward and Robert Close
29/08/2001	Nathan to face judge	Steven Ward and Robert Close
22/08/2001	Natural spotter	Steven Ward and Robert Close
15/08/2001	Natural selection at work	Steven Ward and Robert Close
8/08/2001	All quiet on koala front	Steven Ward and Robert Close

1/08/2001	Numbers are up	Steven Ward and Robert Close
25/07/2001	Fruit bats flies into stormy debate	Steven Ward and Robert Close
18/07/2001	We're in koala lovers heaven	Steven Ward and Robert Close
11/07/2001	Abnormality discovery first	Steven Ward and Robert Close
4/07/2001	Shocking life of Brian	Steven Ward and Robert Close
27/06/2001	Kevin is still on the move	Steven Ward and Robert Close
20/06/2001	Close score kept on our koala behaviour	Steven Ward and Robert Close
13/06/2001	Our friend Shirley's still making news	Robert Close and Steven Ward
6/06/2001	Airport koala alert	Steven Ward and Robert Close
30/05/2001	Why life's often grim for koalas	Steven Ward and Robert Close
23/05/2001	Appin Rooda a horror	Steven Ward and Robert Close
16/05/2001	Hunt on for koala witnesses	Steven Ward and Robert Close
9/05/2001	Lots of birdlife to study	Steven Ward and Robert Close
2/05/2001	Big koala visits temple	Steven Ward and Robert Close
25/04/2001	Doubting Karl spots Wedderburn koala	Steven Ward and Robert Close
18/04/2001	Pruning may be a better option	Steven Ward and Robert Close
11/04/2001	Family repeat visitors	Steven Ward and Robert Close
4/04/2001	There's still lots to learn about koalas	Steven Ward and Robert Close
28/03/2001	Life on the wild side not much fun	Steven Ward and Robert Close
21/03/2001	Shirley is still going strong	Steven Ward and Robert Close
14/03/2001	Koala cops bird lecture	Steven Ward and Robert Close
7/03/2001	Breeding worry at Wedderburn	Robert Close and Steven Ward
28/02/2001	Koalas spotted	Robert Close and Steven Ward
21/02/2001	A question of numbers	Robert Close and Steven Ward
14/02/2001	Island paradise for koalas	Robert Close and Steven Ward
7/02/2001	Where are the koalas?	Steven Ward and Robert Close
31/01/2001	Echidna goes to university	Robert Close and Steven Ward
24/01/2001	Eye to eye with a koala	Robert Close and Steven Ward
17/01/2001	Cocos palms not right for koalas	Steven Ward and Robert Close
10/01/2001	Tumour kills Gary the koala	Steven Ward and Robert Close
3/01/2001	No article	

Date	Article Name	Author
27/12/2000	No article	
20/12/2000	Keep a lookout for Lyn	Steven Ward and Robert Close
13/12/2000	Two Kentlyn koalas fit pattern	Steven Ward and Robert Close
6/12/2000	A question for numbers	Steven Ward and Robert Close
29/11/2000	Quiet on koala front	Steven Ward and Robert Close
22/11/2000	Dogs are a menace	Steven Ward and Robert Close
15/11/2000	Eric has become a koala survivor	Robert Close and Steven Ward
8/11/2000	Cheeky Cindy	Robert Close and Steven Ward
1/11/2000	It's koalas galore on the weekend	Steven Ward and Robert Close
25/10/2000	Airds jumper keeps us busy	Steven Ward and Robert Close
18/10/2000	Outfoxed by wily old male	Robert Close and Steven Ward
11/10/2000	An accident just waiting to happen	Steven Ward and Robert Close
4/10/2000	Linda's coping with life	Robert Close and Steven Ward
27/09/2000	Breeding season signals danger for Anne	Steven Ward and Robert Close
20/09/2000	Life's tough for females in season	Steven Ward and Robert Close
13/09/2000	Linda may be looking for a male	Steven Ward and Robert Close

6/09/2000	Koala stranded up a cocos palm	Steven Ward and Robert Close
30/08/2000	Post-mortem reveals facts	Steven Ward and Robert Close
23/08/2000	Mother and cub both doing well	Steven Ward and Robert Close
16/08/2000	Eric's been anything but idle	Steven Ward and Robert Close
9/08/2000	Hugh gets heave from young ones	Steven Ward and Robert Close
2/08/2000	How we retained a beauty spot	Steven Ward and Robert Close
26/07/2000	Drivers, beware of wanderers	Robert Close and Steven Ward
19/07/2000	Look out for young Linda	Robert Close and Steven Ward
12/07/2000	A vision splendid od a bush haven	Robert Close and Steven Ward
5/07/2000	Molly makes reappearance on scene	Steven Ward and Robert Close
28/06/2000	Females jostling for best habitat	Steven Ward and Robert Close
21/06/2000	Koala trap abandoned	Steven Ward and Robert Close
14/06/2000	Alby was a top attraction at Riverfest	Robert Close and Steven Ward
7/06/2000	This poor wallaroo didn't make it	Steven Ward and Robert Close
31/05/2000	Lyn bearing up as mum	Steven Ward and Robert Close
24/05/2000	Search for Sarah	Robert Close and Steven Ward
17/05/2000	Life's not easy for Gerald	Robert Close and Steven Ward
10/05/2000	Koalas sighted in the mountians	Steven Ward and Robert Close
3/05/2000	Koala colony alive and well	Robert Close and Steven Ward
26/04/2000	Habitat is threatened	Robert Close and Steven Ward
19/04/2000	Shirley unfazed by latest visit	Steven Ward and Robert Close
12/04/2000	Martine says g'day froma gorge	Robert Close and Steven Ward
5/04/2000	Any Koalas in the Blue Mountians	Robert Close and Steven Ward
29/03/2000	Drive carefully on Peter Meadows Road	Steven Ward and Robert Close
22/03/2000	A school project to call study	Robert Close and Steven Ward
15/03/2000	Clean up sites of disgrace	Robert Close and Steven Ward
8/03/2000	Minnie possum	Robert Close and Steven Ward
1/03/2000	On the trail os a missing koala	Robert Close and Steven Ward
23/02/2000	Be rich in spirit among koalas	Robert Close and Steven Ward
16/02/2000	New koala a ripe female	Robert Close and Steven Ward
9/02/2000	Koala data is worth while	Robert Close and Steven Ward
2/02/2000	Checking signals	Robert Close and Steven Ward
26/01/2000	A scrub turkey revival	Robert Close and Steven Ward
19/01/2000	Martine's journey	Robert Close and Steven Ward
12/01/2000	Preventing road	Robert Close and Steven Ward
5/01/2000	No article	

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, January 5, 2000

Preventing road deaths

TWO interesting calls came in recently. Both showed how simple actions could help prevent koala road deaths. The first was from a motorist, driving along Peter Meadows Road at 6am towards Peter Meadows Creek from Kentlyn, who saw a large "whitish" koala crossing the road. The koala was on the bend 40m from the creek and oncoming drivers would have had difficulties seeing it. The driver therefore flashed his lights in warning and was pleased to see the koala vanish safely in the bush.

We have had other reports of a "whitish" koala in this area and it appears that the road

mac's koala club

occurs within this animal's home-range. If so, the animal's chances of long-term survival are low. A study of a radio-tracked koala whose home-range included a road made 23 safe crossings before being struck. Unfortunately, motorists tend to drive furiously through the bends in this area and we have already had one koala fatality there. So if local residents who use the road at night

and in the early morning are aware of the problem, slow down and flash their lights as a warning, then perhaps the koala may survive.

The second caller reported that her husband, Ed, a truck driver, spotted a koala crossing the freeway near the Picton/Wilton overpass at 3am. He stopped his truck and used his CB radio to warn other trucks in the area to slow down. The other drivers heeded the call and Ed watched as the koala crossed the four lanes to safety. This was the third recent report of a koala in this area.

Unfortunately, one report was of a koala that failed to cross the road

All studies of koala deaths on roads have shown that speed is the crucial factor. Risk is low for koalas in areas where speeds are limited to 60km/h. Low visibility, that is, the "view of the road" is another major contributor to koala kills. So drivers in the Campbelltown area can preserve koalas by driving more slowly in vegetated areas where the road bends and dips!

To report a koala sighting please call the University of Western Sydney Macarthur hotline on (02) 99629996. To hear a male koala bellowing call 4620 3200.

- Robert Close
and Steven Ward

Martin's Journey

IN a previous column we described our dilemma about whether or not to move the aged koala, Martin, from his position in a tree beside Wedderburn Road.

We decided not to because of the stress of the capture and because we suspected he was being hounded by younger, fitter males.

Moving him might have put him back into trouble with these males.

We hoped that Wedderburn residents would drive slowly and watch out for him.

Sadly, we received a call from a resident who found Martin moving slowly across the road showing signs of an impact with a car.

Even as the resident helped Martin reach safety, cars came hurtling past disregarding the emergency lights!

Martin reached a tree and climbed to a 3m high fork to nurse his wounds.

He appeared not to have broken limbs but was obviously feeling sorry for himself.

Robert inspected Martin from the ground and

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decided to leave him there until morning.

Next morning, he was still in the same fork so we caught him and took him to Campbelltown Veterinary Hospital for a checkup.

Peter Brown and Gary Ashton checked him over carefully and verified no bones or teeth were broken.

But there were minor abrasions and bruising and Martin was quite dehydrated.

They also found, as we'd expected, Martin was quite old.

His teeth were seriously worn and his eyesight poor.

Just as with humans eating becomes difficult and the lenses in the eyes become cloudy with age.

Pushed into unfamiliar territory by the younger

males, he would be forced to wander haphazardly into the world of cars and dogs and, possibly, into habitat with unsuitable food-trees.

Considering these problems, in addition to his dehydration and overall poor condition, we decided that he should be put down.

We guess that Martin had lived 10 years or more

on the Wedderburn plateau. For most of that time he had lived unnoticed by the human residents.

In his final wanderings, however, he was seen by many Wedderburn residents and passers by who traverse the area.

If motorists limit their speed to 70km/h on the plateau, and be particularly

careful when crossing through the Georges River gorge, then their chances of survival will improve.

To report a koala sighting call the University of Western Sydney Macarthur hotline on 9962 9996; to hear a male koala bellowing: 4620 3200.

**Robert Close
and Steven Ward**

A scrub turkey revival

THE Reader's Digest Complete Book of Birds, a great source of information on our local birds, states that the brush or scrub turkey (*Agoutia lobata*) used to extend from Cape York south to the Illawarra district, but now no longer exists south of Sydney.

We were surprised, however, to hear from a lady living at Glenfield that a scrub turkey was

living on her property. The scrub turkey is a large bird (700mm) and very distinctive, with its red head and neck, yellow ruff of skin, black plumage and large rudder-like tail.

Its behaviour is also unusual because the male builds a huge nest mound (4m wide, 1-1.5m high) and carefully controls the surrounding vegetation within the mound so

takes the chicks to hatch. The chicks emerge from the mound to an independent life and is flying within a few hours.

Excited at the idea that this fascinating bird was staging a revival at our back door, we immediately contacted Alan Leishman, our local oracle on all matters ornithological, to find out the current status of scrub turkeys in our area.

He informed us that the birds were in fact on the increase and that a population is now building up at Buffi, and that there was even a recent report at Merrylands.

The scrub turkeys are easily kept in captivity, however, and Alan suspects that these are escapees from aviary operations south of Sydney. Scrub turkeys become very trusting and are apt to get a bit of the

Whatever their origin, it is good to hear that the birds are returning to their original haunts. Will the quail be far behind?

A word of warning, however, for people living on the edge of the bush who might wish to feed the turkeys and encourage them into their gardens. Scrub turkeys become very trusting and are apt to get a bit of the

to take over your garden. They are known to clear a 20m radius area of scrub to prepare their mound.

To report a scrub turkey, call the University of Western Sydney on 0936 to visit a bush who might wish to feed the turkeys and encourage them into their gardens. Scrub turkeys become very trusting and are apt to get a bit of the

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maintain a constant temperature of 31 degrees for the 55 days in which it

Checking signals

RADIO-TRACKING our four female koalas is a laborious task.

Fortunately our chief volunteer, Lynn, loves the work and the koalas and now know their individual characters so well that the job is becoming easier.

However, even when the radio-signal tells the tracker that the koala is close-by, it is still often difficult to determine which tree the koala is in.

At Kentlyn recently, when the radio-signal was telling Lynn and two fellow volunteers that Shirley was near, all three were scanning the trees for the tell-tale silhouette or flash of grey, or the wiggle of an ear that would give

her away. So when the cry went up, they all sighed with relief to see the grey shape high up in a Turpentine.

When Lynn inspected her with the binoculars however, she couldn't see Shirley's coloured ear tags, and decided it must be a new animal.

The search recommenced and Shirley was found less than 100 metres away.

So Robert was called out to assess whether a catch was on for the newcomer.

He climbed the Turpentine for a closer look and found a very light coloured youngster which clambered out to the outer-

backyards.

So keep your eyes and ears open and let us know if you spot him.

We decided not to attempt a capture because the cub was in a tricky spot.

Young cubs tend to be unpredictable and will often attempt leaps that older and wiser koalas shun.

So we've left it for another day.

If it heads west we'll see it again; if it goes east we may hear of it in 18 months at Heathcote.

On another note, a reader called in response to the scrub turkey article in last week's column.

She'd found one in her

garden at Minto Heights just before Christmas.

Another caller reported a swamp wallaby with twins (an unusual occurrence) killed at Wedderburn.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a male koala bellowing, call 4620 3200.

Our Koala video can be purchased from The Macarthur Advertiser office, from Quondong Tourist Information Centre or by writing to us at

UWS Macarthur, Biology Department, PO Box 555, Campbelltown, 2560.

- **ROBERT CLOSE and STEVEN WARD**

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most twigs. Sure enough, it was not Shirley's baby.

We expect that its mother lives adjacent to Shirley's range and her baby has now started his journey by moving into Shirley's territory.

If Shirley takes exception to the youngster, human residents living close to Georges River Road may find it in their

Koala data is worthwhile

IN 1995 Steven and I started writing the Mac's Koala Club columns to encourage residents of Campbelltown and suburbs to report koala sightings to us.

Our problem was that local koalas were so thinly spread in the district that it was impossible for just one student (Steven) to find enough koalas to make the study worthwhile.

Thanks to our readers, the plan worked beautifully and Steven was able to locate enough animals to answer the questions that we asked originally.

Steven is now faced with an enormous amount of data on sizes of home ranges, movements, tree choice, reproductive rates,

mac's koala club

measurements of blood components, genetic (DNA) variation, survival rates, health status, population densities and distributions.

He now faces the analysis of all this information and its presentation in a thesis of

300 pages.

Provided he can focus his time on it, this task will take him about eight months.

The column will continue, however, because we wish to maintain the program of ear tagging and radio tracking that is working so well and providing us with so much useful information.

To give Steven time to write, he and I have swapped jobs.

That is, I will write and he will check for factual, spelling and grammatical errors.

Over the next eight months, I expect to report on the interesting results that will arise out of

Steven's analyses.

Also, I will respond to calls that come in from the community and will only call Steven from his desk if a koala catch is on.

And the calls continue to come. Last week I was called out to Airds where, a mere stone's throw from the houses, a young koala had spent a week despite the trail bikes roaring beneath him.

The caller had lived 20 years in the area and knew the bush well, but had never seen a koala before.

So are the koalas increasing in numbers and moving into new areas or are we just noticing them more?

The answer to this

question may emerge from Steven's data. Remember, koalas were not officially known in the Campbelltown area before 1986!

To report a koala sighting, call the University of Western Sydney Macarthur hotline on 9962 9996. To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre, or by sending \$24 to: Steven Ward and Robert Close, UWS Macarthur, Biology Department, PO Box 555, Campbelltown, 2560.

■ By Robert Close and Steven Ward

New koala a ripe female

IN last week's column we mentioned that a caller from Airds had reported a koala in the bushland between the houses and the Georges River.

He'd spotted the koala on several different days and always within a fairly small area of grey gums.

When Robert went out to check, he couldn't locate the koala but found lots of the distinctive koala pellets (they look like fat, reddish brown olive-pips).

From the size of the pellets, he guessed that the animal was quite young.

A week later, the caller contacted us again to report that he'd re-discovered the koala.

Eager to identify it, we drove to Airds and found the koala high in a grey gum.

It was seeking comfort from the heat by sprawling out in a shady tree fork to expose as much of its surface area to the gentle breeze as possible.

Because of the heat we needed to make the capture as speedy as possible.

So we were delighted when it responded immediately to the flag and shot down the tree into Steven's waiting arms.

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It turned out to be a young, 4.6kg female with a mature pouch that looked ready to receive its first young.

With luck the koala, nicknamed Linda, will give birth soon, although she will have to find a mate fairly quickly as there is only a month or two of the mating season left.

Linda was in beautiful condition and is probably in the process of establishing her home-range.

This range lies only a kilometre or so from Shirley's area.

Shirley, of course, has been the subject of many of our columns and is a well established female koala (7kg) in Kentlyn.

Linda is the second untagged koala that we have found this month in the general area and shows that we still have a lot to learn about our

koalas.

So please call us if you spot a koala.

We frequently hear reports that some local residents are not calling us because they fear that the animals will be disturbed.

However, our information gained from tracking animals fitted with radio-collars shows that the koalas remain in peak condition, despite our studies, and are living what appears to be very contented lives, all the while producing young at maximum capacity.

So please, throw off your caution and call us.

The additional information will help koalas in the long-run and might give you a special interest in your local koalas.

To report a koala sighting please call the University of Western Sydney, Macarthur hotline on 9962 9996.

You can also buy the Campbelltown koala video from The Macarthur Advertiser, or from Quondong Visitor Information Centre or by sending a cheque for \$24 to Robert at UWS Macarthur, Biology Department, PO Box 555, Campbelltown, 2560.

■ **By Robert Close and Steven Ward.**

Be rich in spirit among koalas

YOU can be rich or poor in Campbelltown, but if you live close to the eastern bush fringe from St Helens Park to Minto Heights, you can be rich in spirit, with koalas on your doorstep and access to some of the best bushland in the country.

Fire trails here give occasional glimpses of the Georges River and wind round sandstone gullies, in a parkland of wildflowers, eucalypts and the pink, smooth Angophoras.

Many walkers, cyclists and joggers use these fire-trails and last Saturday morning, two joggers called to report a koala close to one trail at Kentlyn.

Robert was there by 9.30am and found the clearly marked spot on the trail and the tell-tale claw marks freshly gouged in an adjacent, rather threadbare scribbly gum.

The koala, however,

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was gone.

It had apparently felt insecure in the scribbly gum and, despite the dangers of walking on the ground during the day, had moved to a safer tree.

As Robert searched the area, two walkers, exercising their dogs, strolled along the trail towards him.

Coincidentally, they had called a few weeks previously to report a sighting only 200 metres from the present sighting.

They pointed out the tree, an even more

spindly scribbly gum, but scored around its trunk with numerous long, raw scratches up to a height of about 1.2 metres.

These scratches had been made by roaming dogs (not belonging to the walkers) leaping up in an attempt to reach the koala.

So where had these dogs come from?

It appears that a number of residents, whose houses meet the bush, do not confine their dogs.

In the vicinity of the sightings, a pair of German shepherds, and further along, a trio of cattle-dogs, roam unhindered.

We appeal to these owners and all others along the bush fringe to keep their dogs restrained.

Two previous callers, who had the courage to report to us that their dogs killed a koala, were naturally distraught.

It was obviously a dreadful experience for the dog-owners and the koala, but one which can largely be avoided by walking with your dog during the day, confining them at other times, and by investigating any continued barking.

To report a koala sighting, call the University of Western Sydney, Macarthur hotline on 9962 9996.

To hear a male koala bellowing, call 4620 3200.

You can also buy the Campbelltown koala video from The Macarthur Advertiser, or from Quondong Visitor Information Centre, or by sending a cheque for \$24 made out to the University and marked attention Robert Close to UWS Macarthur, Biology Department, PO Box 555, Campbelltown, 2560.

■ By Robert Close and Steven Ward

On the trail of a missing koala

A YEAR or two ago, a truck driver called to report a koala crossing the Appin Road just past the Copperfield Drive roundabout.

We had never studied that region and ever since had wondered where the koala was headed.

We recently discovered what the bush was like when we followed a small track, winding westward from Appin Road through open woodland, and joined a stalwart band of volunteers planting trees to help Campbelltown Council revegetate and restore Noorumba Reserve.

By the time we arrived, the young plants, grown from seed collected on the site, had been placed in their allotted positions awaiting the final planting and mulching.

About 20 people braved the morning heat and within two hours had the job done.

Backbone of the group was an

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enthusiastic bunch of residents, the Friends of Noorumba Reserve, who have a splendid vision for the reserve's future.

At present, the reserve is in transition from being a farming/pastoral property.

The vegetation growing on more fertile shale soils is different from the sandstone bushland of the Georges River.

So instead of grey gums and bloodwoods there are the huge

forest red gums, iron barks and grey boxes.

The red gums are usually much loved by koalas and I looked for the characteristic claw marks in the silvery-smooth bark, but saw nothing, but the long scratches of goannas.

However, a thorough search of the region would take days and there is still a chance the koala is there.

Unfortunately, the reserve needs much tender, loving care.

Rubbish dumpers, the curse of Campbelltown's bushland, have dropped their old fridges, burnt-out cars and general waste in Menangle Creek which cuts deeply through the reserve on its way to the Nepean River.

Trail bike riders have worn their raceways in the fragile clay soils, arsonists have left their mark, and weeds have escaped from garden waste.

The Friends of the Noorumba Reserve, however, envisage a woodland for passive

recreation where residents can come for a barbecue by the lake, picnic beneath the towering redgums or bushwalk along the could-be beautiful Menangle Creek.

The next tree-planting will be advertised when the council has more plants available.

Meantime, interested volunteers can contact the council's health and environmental services department to learn more about the Friends and help make their dream come true.

To report a koala sighting, call the University of Western Sydney, Macarthur hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre, or by sending \$24 to us at the university.

— Robert Close and Steven Ward

Minnie possum

A TINY, grey creature, no bigger than a 10-cent piece caught Barry Durman's eye recently as he spread mulch in his garden.

Most other gardeners would have assumed it was a baby mouse, but not Barry.

He had been with the group doing a fauna survey in Dharawal State Recreation Area in November when we captured a rare pygmy possum (Macarthur Advertiser, December 2).

So despite its miniscule size, Barry recognised the possum, realised it must have fallen from its mother's pouch and kept it warm.

But how do you feed a midget whose mouth is no wider than a rice grain?

You call in an expert that's what!

A local wildlife carer, who has spent years coaxing food of all kinds into tiny mouths, soon had Minnie drinking 6ml of milk a day from a syringe.

At first Minnie was too small to even register on the scales, but within the week weighed in at 7gm.

She's now weaned, steady at 10gm and has won the carer's heart with her gentle ways and interest in all that goes on around her.

By the time she weighs 25gm, Minnie will be ready to move on, but where to?

We are not sure whether she arrived at Barry's in the pile of mulch or fell into it from a tree.

Pygmy possums are so small that they can

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loose bark on a tree, so either origin is possible.

Students at UWS, however, had found a live pygmy possum three years ago in a pitfall trap on the edge of O'Hares Creek only a kilometre from Barry's, so we think it's most likely that Minnie is a local lass.

Even so, Minnie might find it difficult to survive in the wild after her genteel education at Pam's.

The other option to release is life in a breeding program.

Because pygmy possums are so rare, we hoped that there was a breeding program under way.

First call was to Taronga Zoo where we struck gold!

They have a lone male pygmy and were searching for a mate.

So when Minnie is ready, she'll head off to start a captive colony.

To report a koala sighting, call the University of Western Sydney, Macarthur hotline on 9962 9996.

To hear a male koala bellowing, call 4620 3200.

You can buy the Campbell's koala video from The Macarthur Advertiser office, or from Quondong Visitor Information Centre, or by sending a cheque for \$24 to Robert made out to the University.

- Robert Close and

Clean up sites of disgrace

ONE of the activities for students enrolled in the environmental science course at the University of Western Sydney, Macarthur is a tour of local environmental disasters.

First stop is the end of the bitumen at Lysaght Road, Wedderburn, where the students see the piles of rubbish dumped by people too lazy, mean or ignorant to use the public tip at St Helens Park.

Normally, we don't venture past the first sidetrack because the message is so obvious.

Last Sunday, however, a dedicated band of people taking part in Clean Up Australia Day set to tidy the roadside for over a kilometre past the end of the bitumen.

We were stunned by the extent of the desecration of this bushland.

Household garbage, white-goods, building and industrial waste, old tyres, drums full of liquid, garden waste, burnt-out cars - tonne after tonne of it and scattered wherever vehicles could penetrate the bush.

A television crew was there from the Discovery Channel and the interviewer asked Robert how the rubbish could affect the local koala population.

His reply was that there were many effects.

In the short-term, the greatest danger was that the rubbish would attract arsonists.

Because the site lies between the Georges River and O'Hares Creek (home to most of the local koalas), a fierce fire burning north and eastwards could destroy

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nutrients released from the decomposing wastes, and oxidised metals from discarded machinery would flow into the creek-lines and gradually change the vegetation there.

Such changes, wrought by increased nutrient flows, have been implicated as part of the cause of the decline of the Barrenjoey koala population.

On the northern beaches of Sydney, the number of animals has declined from more than 100 in 1972 to perhaps half a dozen today.

But perhaps the biggest problem is that while the bush verges are lined with filth, we as a city will not value our bushland and will let it be eroded and destroyed.

We will then not react when developers seek to remove the degraded bushland.

To report a koala sighting, call the University of Western Sydney, Macarthur hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$24 to us at the University.

A school project to study call

BUSHWALKERS strolling through woodland west of Kellerman Drive, St Helens Park, late last year were intrigued to hear a guttural bellowing coming from the slopes above Spring Creek.

Although they searched for the source, they were unsuccessful.

However, they later notified Lynn, our radio-tracker, who hurried out to the site and searched for evidence.

She found it, in the form of faecal scats and scratches, not 50m from the rocks where the bushwalkers paused to listen, and verified that the strange sound was made by a koala.

The site of the bellowing is significant because it lies on the north-western boundary of a Landcom proposal to prepare 200 housing sites in the existing bushland.

Currently a Species Impact Statement concerning the impacts of the proposed development on threatened species or populations is being considered by Campbelltown Council.

As the koala is one of several species living on or near the site which are classified as threatened, it is important for us to determine the extent of koala usage.

An Ambarvale student, Paul Stickler, has taken on the job for a school project.

One of his tasks is to examine grey gums on the site for scratches and scats and to plot the area of use.

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conduct a bellowing survey.

He will knock on doors of houses which back onto bushland in Briggs Place, Carbasse Crescent, Withnell Crescent and parts of Kellerman Drive.

Paul will ask residents if they have heard koalas bellowing.

If they have, he will ask for an estimate of the dates and the direction and the loudness of the call.

If any residents wish to contact Paul before he visits to report bellowing, we would be delighted if they would write to Paul (attention R. Close) c/- University of Western Sydney, Macarthur, PO Box 555, Campbelltown, 2560.

A recording of the bellowing can be heard by dialling 4620 3200.

To report a koala sighting, call the University of Western Sydney, Macarthur hotline on 9962 9996.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre, or by sending \$24 to us at the University.

The Macarthur Advertiser, Wednesday, March 22, 2000

Drive carefully on Peter Meadows Road

THREE interesting calls came in this week.

The first was from a motorist who spotted a koala crossing Peter Meadows Road, Kentlyn, on the Campbelltown side of Peter Meadows Creek at 6am.

This is the same location where several people have sighted a koala recently.

Therefore, we

suspect that a koala has established its home-range in this area and; unfortunately, the range includes the road.

We ask all motorists who use the Peter Meadows Road to drive particularly carefully in that area, watch for any unusual shapes and, above all, not to speed.

We would be grateful if readers of this column in the Kentlyn area would spread the word to all the drivers they know who use Peter Meadows Road.

Incidentally, the woodland beside Peter

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Meadows Creek is particularly beautiful, and we recommend a bushwalk along the path which leads north from the road on the western side of the creek.

Keep your eyes out for the koala.

The other call came from Appin, where a koala visited a garden not far from the oval.

Although the trees around Appin look as though they'd be attractive to koalas,

we've had few reports.

We've yet to hear of a female with young, so the Appin koalas may be roamers from Campbelltown.

Two of our males, tagged in Campbelltown, have certainly headed off towards Appin.

One was discovered on his way to Douglas Park.

Sightings of females with young are important for deciding whether or not an area contains a breeding population.

Because our studies have shown that male koalas will roam more than 15 kilometres, a

koala sighting in an area does not mean much unless it is of a breeding female.

Just such a report came from our third caller, thus verifying that the Hilltop area is important for koalas.

Previous sightings at Hilltop could have been lone males.

To report a koala sighting, call the University of Western Sydney, Macarthur hotline on 9962 9996.

A recording of a bellowing koala can be heard by dialling 4620 3200.

- Steven Ward
and Robert Close

Any koalas in the Blue Mountains?

I n our files we have a news clipping dated 1994 which states that only 160 koalas remain in the bush outskirts of Sydney.

The article, prepared by the Australian Koala Foundation, suggests that two colonies survive at Gosford-Brisbane Waters while few koalas remain in Kir-ring-gull Chase National Park.

The foundation also reports that only five koalas survive at Avalon and 60 at Campbelltown. In previous articles, however, we have pointed out that the Campbelltown population is likely to be more than 120 and that number appears to be increasing. The 1994 article also states that the koala

population in the Blue Mountains is extinct. This statement may also be wrong. The history of koalas in the Blue Mountains is fascinating.

Firstly, there is only one specimen, from 1984, listed in the Australian Museum. This lack of specimens would indicate that numbers were never large. However, there is a Koala Road at Blaxland which suggests that a colony may have existed in the area. Legend has it that the koalas disappeared

from Kangaroo during the fires of 1966. In fact, we have a Clancy and Norman area that have turned up in the Lower Blue Mountains in the last 18 months, and the National Parks and Wildlife Service now wishes to determine whether Clancy and Norman are merely remaining males or represent part of a larger breeding colony. Consequently, the service has asked us, in collaboration with a local wildlife group, Wild Scenes, to conduct a survey of the extent of koala distribution and habitat in the Lower Blue Mountains. Our first step is to find out whether anyone in the community has seen or heard koalas anywhere in the Blue Mountains.

If any reader can give us any indications, we would be delighted to hear from you. You can supply information at the Wild Scenes website, wildscenes.com.au/koala

This site also provides details of the project and general information on koalas. Alternatively, you may pass on information by writing (giving a rough map to us at UWS, PO Box 515, Campbelltown, 2560), or ring via the pager 9962 9998.

The call of a bellowing koala can be heard on 4620 3200 or at the website. We look forward to your information. ■ Robert Close and Steven Ward

Martine says g'day from a gorge

AR-TAGGED
A koala in small tree at Wedderburn before the second bend past the gorge was the message on our pager at 11 pm last Friday.

The callers had found the koala walking down the centre of the road and it showed no fear when they stopped to help it from the road.

The callers thought that the ear-tags were yellow and blue. However, our records did not indicate a likely koala with that

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combination. Eager to solve the problem, we immediately drove out to the gorge. We were assisted by Fred Eberhardt, a former Thomas Reddall High School exchange student from Germany who is visiting for a month, and he soon spotted the koala high

in a blackbutt. Unfortunately, the koala was too high and our lights too weak to allow us to see the ear-tags.

Next morning, however, Fred soon spotted the koala again and this time we could clearly see its white and green ear-tags. Apparently, the orange glow of the street lights at the gorge had distorted the colours! The koala turned out to be Martine, found at the gorge as a juvenile way in October 1998!

This was an exciting find because it indicated that the young female had stayed in the region where we originally found and released her. She is now three years old and probably breeding.

She certainly appeared plump, and had that soft, ashy-grey colour that we associate with good health. If she is breeding, then it is the first breeding female that we have found outside the known breeding areas of Kaintlyn and

O'Hares Creek. Moreover, Martine's home-range is a mere stone's throw from the Landcom site at St Helens Park directly across the Georges River.

The species impact statement for this development, however, states that koala recordings in the vicinity are more likely to be transient or occasional visitors to the site. So Martine's presence challenges that statement. Martine's female

cubs are likely to set up home in adjacent areas to their mothers.

This would put them firmly into the Landcom development site where their food trees are abundant!

Martine's first challenge, however, will be to survive the cars that often hurtle up the gorge road. The rock-face beside the road is steep and there are few escape routes for her if she ventures on the road again. So we implore drivers to take the

greatest care while driving in the gorge vicinity.

To report a koala sighting, call the University of Western Sydney, Macarthur hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200. Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre on by sending \$24 to us at the University.

Robert Clo and Steven Wa

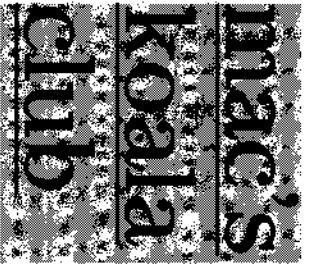
Shirley unfazed by latest visit

SHIRLEY from Kentlyn is our longest serving radio-tracked koala.

She was first captured and ear-tagged in 1993 and has worn the radio-collar for a good part of the time since then.

We have watched her produce a cub every year and these cubs have all survived to be weaned.

One of them achieved fame by travelling across the Holsworthy



Range to Alford's Point. Shirley's collar must be changed every eight months to replace the battery and this, of course requires that we

catch her.

Unfortunately, she has become so used to us that she takes no notice of the flag that normally scares other koalas down the tree and into our arms.

So on this occasion, Robert was eight metres up a turpentine tree waving the long aluminium pole with the flag attached and nothing was happening.

He decided that he would have to use a loop

which fits over her head (without tightening) and so force her down the tree towards him.

This procedure, which we only use under specific conditions, worked well and Shirley was soon on Robert's lap being wriggled into the catching bag.

Fortunately, Shirley is very quiet when being handled and neither bit nor scratched during this ticklish procedure.

She weighed in at a healthy eight kilograms and her fur was grey and healthy.

In her pouch we found a small cub, about the size of a sausage.

This would be about six weeks old and hopefully we can report its progress in a later column.

On our way back to the vehicle we noticed two dogs coming down the path towards us. Both were white with

occasional dark patches and the smaller, a Staffordshire bull-terrier, was very aggressive towards us.

These dogs should not be roaming untended.

They are a danger to the koalas, other wildlife, and people like us who walk in the Kentlyn/Ruse bush.

We hope this column will be read by the owners of the dogs or by people who know the owners.

To report a koala sighting, call The University of Western

Sydney, Macarthur hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, Quondong Visitor Information Centre or send \$24 to us at the University.

By Steven Ward and Robert Close.

Habitat is threatened

TWO weeks ago we reported the discovery of Martine, a mature female koala which has established a home-range beside Wedderburn Gorge.

Because she was found only a few hundred metres from a large Landcom development proposed for St Helens Park, her discovery raises questions about the effects of the development on the local koala population.

These effects were recently discussed in a species impact statement (SIS) prepared by consultants for Landcom.

An SIS must discuss the effects of a proposed development on threatened species known or likely to be living in the development area and in any area likely to be affected.

The koala is listed in NSW as a threatened species and so must be considered by the SIS.

In this week's column we shall discuss how the SIS conclusions differ from ours.

In discussing the size of the local koala population, the SIS quotes the Australian Koala Foundation's estimate of 30-90 koalas.

They conclude that the Campbelltown koala population is too small to be likely to survive.

We estimate, however, that the combined population of the Kentlyn, Minto and Wedderburn koalas exceeds 120.

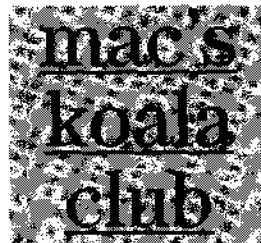
This estimate does not include animals living on the Holsworthy firing range.

Moreover our animals like Shirley, whose breeding record was discussed in last week's column, are long-lived and are producing young at the maximum rate.

These young are spreading into the surrounding new areas.

On the Landcom site, 28.7 per cent of the trees are preferred by koalas.

This is a high



percentage and indicates excellent habitat.

Moreover, the site lies adjacent to the Georges River which is a known movement corridor for koalas.

The SIS maintains that the development's effect on koala corridors will be insignificant.

However, they have not considered that the effects of the development extend beyond the site itself.

That is, after 200 houses are built, the threatening processes of dogs, trail bikes, arson, weeds, rubbish and erosion will extend closer to the corridor formed by the Georges River and associated vegetation.

This intrusion is likely to have a significant effect on dispersing animals.

In conclusion, we consider that this development is a continuation of the death by a thousand slices of the Georges River bushland through the cumulative effects of many developments.

We believe that the riverside vegetation with its great variety of eucalypts is vital for koala survival and that of many other local species.

To report a koala sighting, call the University of Western Sydney's Macarthur hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$24 to us at the university.

□ **ROBERT CLOSE**
and **STEVEN WARD**

Koala colony alive and well, thanks

THE species impact statement prepared for a proposed Landcom development site at St Helens Park concluded Campbelltown's koala population was so small that its long-term survival was unlikely.

However, we consider that not only is there a thriving and expanding population living in the bushland beside the Georges River, but there are breeding animals living across the Holsworthy firing range to the east.

Our evidence that breeding animals occur east of Campbelltown stems from a survey that Steven recently conducted for the Georges River and Hacking River Catchment Management Committees.

These committees funded a postal survey of all the people living adjacent to bushland areas in the Sutherland Shire.

A total of 25,925 survey forms were posted out and Steven received 2676 replies (10.3 per cent). Of these, 158 respondents, or 5.9 per cent of those who

mac's koala club

replied, reported having sighted a koala, either dead or alive, in the region from Sydney south to Appin.

Until the returns from the survey arrived, we had no evidence that breeding animals lived anywhere else, but in the Campbelltown region.

So it was a great thrill to hear about 11 sightings of koalas with young. The sightings occurred irregularly across the Sutherland Shire and Wollongong regions.

Consequently, we are unable to say whether these females are part of specific breeding colonies or whether they are single animals which have established themselves in scattered pockets of suitable habitat.

Whatever the case, the survey reports are reassuring because we now can be

more certain that even if a fire should sweep down the Georges River and O'Hares Creek Gorges and destroy the Campbelltown breeding colony, some koalas in the isolated pockets of habitat would survive to regenerate the population.

We predict that the Campbelltown koala population is rebuilding after a previous disaster and that not all suitable habitat is yet occupied.

So areas such as the Landcom site at St Helens Park, where there is a high density of favoured food trees, will eventually become occupied by koalas.

Regeneration of the Campbelltown koala colony after a fire depends, of course, on the bushland still being there when the population of koalas rebuilds.

Projects such as the proposed Landcom development at St Helens Park would remove available habitat and decrease the chances of recovery.

□ Robert Close and Steven Ward

Koalas sighted in the mountains

OUR search for koalas in the Lower Blue Mountains has yielded many reported sightings, from Mount Tomah in the north to Mulgoa.

These sightings have raised our hopes that breeding colonies will be found in the Mountains.

Our field trips, unfortunately, have not yet unearthed positive evidence of koalas.

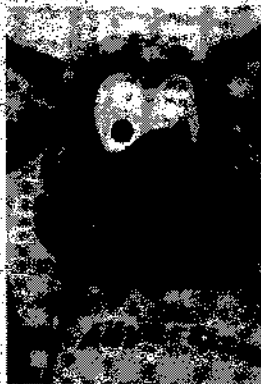
However, we have an immense and difficult area to cover.

One of our search methods has been to play a recorded koala call through a megaphone in potential koala areas.

The call is truly scary (ring 4620 3200 to listen) and echoes out across the bushland.

The idea is that the male koala hears our taped call, thinks it comes from a challenger, and replies with his own call.

Last week, with our



mac's koala club

colleagues from Wildscenes and a group of volunteers, we played the call across the Nepean River in the Blue Mountains National Park where we were camping.

A strange call, which we recognised as the cry of a Yellow-bellied glider, answered the taped koala bellow!

This fascinating glider is classified as a Threatened Species

and is an attractive marsupial with a dark coat, big ears, long tail (480mm) and distinctive yellow belly.

The call is difficult to describe but sounded a bit like one of our party next morning blowing his nose in a gurgling, whooping sort of manner!

It is quite a social animal amongst its mates and perhaps because of this can become quite tame with humans.

A local ranger told us the story of one Yellow-bellied glider that had landed on a barbed wire fence, tearing its gliding membrane.

WIRES took it into care, returned it to full vigour then released it.

Fifteen months later its body was returned to WIRES.

Apparently it had moved several kilometres before injuring itself again, this time breaking its tail.

A well meaning

family found it and, liking its friendly nature, decided to keep it as a pet.

Unfortunately during the week they had it they fed it only honey and water, and failed to keep it off the room heater where it burnt its feet.

To cap off the story, the family dog then burst inside and killed the poor animal.

The moral of this sorry tale is to notify us or WIRES if you come across a wild animal that seems unable to cope in the wild.

Call us also to report koala sightings on 9962 9996.

The koala video can be obtained from us by sending \$24 to us at the University (PO Box 555, Campbelltown, 2560) or by contacting The Macarthur Advertiser office or Quondong Visitor Information Centre.

■ Steven Ward and Robert Closs

Life's not easy for Gerald the koala

MALCOLM Fraser once remarked that life wasn't meant to be easy.

That saying certainly holds for an old koala that we caught recently.

He was spotted by Pat Durman, who used her spotter's rights to name the old fellow Gerald.

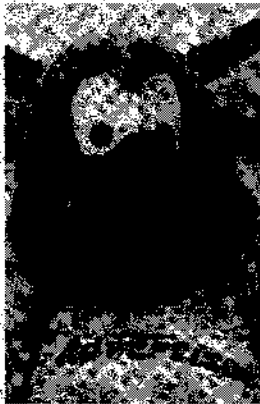
Pat was out searching for native animals in a state-wide community survey that was conducted last week.

She found Gerald at Wedderburn not far from the territories of two of our radio-collared females, Francesca and Sarah.

When Pat found him, however, he was in bushland that we consider to be poor for koalas.

For example, there are very few grey-gums (koalas favourite food in the area) and the trees tend to be smaller.

So we expect that Gerald has been pushed out of the



mac's koala club

better territory and is having to make do.

Having only smaller trees to live in means that Gerald was relatively easy to spot and catch.

Normally a mature male will fight furiously with tooth and claw to avoid capture.

However, Gerald was docile in the tree and even quieter while we examined, measured and weighed him and then fitted his coloured ear-tags.

And what a mess the old boy was in!

His eyes were filmy, his nose had a healed chunk missing from it, his ears were tattered and torn, one front tooth was broken at the roots and the molar teeth were shiny with wear.

In addition, he weighed 3kg less than he should have and his muscle tone was poor.

Never-the-less, his coat colour was ashy-grey rather than the brown we associate with very poor condition, and when we released him back in his tree he scampered up to safety.

So lets hope that he lives out his last months free from trouble and with not too much suffering.

Perhaps he is the father or former mate of Sarah and

Francesca.

The DNA sample that we took from his ear while we inserted his ear-tags will eventually give us some clues!

Incidentally, its amazing that we've not captured him before as we've been working in his area for the last 10 years, probably Gerald's entire life.

It shows two things: firstly that koalas are extremely difficult to spot; and secondly, that even though we have put ear-tags in 50 koalas, there are still many more koalas that we are yet to find.

If you spot a koala, call us anytime on the pager 9962 9996.

To hear a koala bellowing, call 4620 3200.

To buy the koala video, send \$24 to us at UWS, PO Box 555, Campbelltown or contact The Macarthur Advertiser office or Quondong Visitor Information Centre.

By Robert Close and Steven Ward

Search for Sarah

IT was a beautiful bush morning at Wedderburn, with the sky and air clear and the banksias and wattles in bloom.

We were searching for Franchesca and her grown-up daughter Sarah because the batteries in their radio collars were running low.

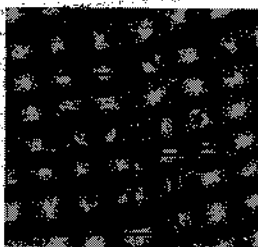
We went to Sarah's usual haunts on the edge of O'Hares Gorge.

Far in the distance we could see the outline of the city. Unfortunately, our position meant also that our receiver was able to pick up a variety of signals and some strange music was blaring out on Sarah's frequency masking her radio collars faint beep-beep.

However, Lynn, our volunteer radio tracker, spotted a young koala nearby and recognised him as Elliott, Sarah's young from 1999.

Normally, we would have expected Elliott to have ventured off on his own months ago.

We gave up on Sarah, set the receiver for Franchesca's frequency, and found her easily in a small tree that made her capture relatively



simple.

Looking on from a nearby tree was her son Victor who, like Elliott, should have been independent.

Something unusual was happening out here, but what?

Inspecting Franchesca's pouch gave us a clue - it was empty! Normally, we would expect to see a large pouch young at this time of year.

Perhaps Victor was allowed to stay around while his Mum had nothing else to worry about.

Franchesca certainly was in much better condition than this time last year when Victor was in the pouch.

Perhaps Sarah was allowing Elliott to remain for the same reason.

So we checked her frequency and, to our delight, found a weak signal.

We soon found her, quite a way from her usual area and in a small tree, which allowed us to set our record for a speedy capture - one and a half minutes from the first wave of the flag to in the bag.

Sure enough, her pouch was empty and like Franchesca, she was in beautiful condition.

Are the two girls about to have a late season mating?

Would this explain why Sarah has roamed out of her normal range and why Gerald (see last week's column) has turned up in the area?

We'll find out next year at catch-up time!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong or by sending \$24 to us at the University - PO Box 555, Campbelltown, 2560.

□ Rob Close and Steven Ward

Lyn bearing up as mum

YEAR 6 students at Kentlyn Primary School who first spotted our matronly koala Lyn in a tree on the school grounds in 1994 will now be in their HSC year.

Lyn, however, is still doing what she does best - chewing the leaf and producing the cubs! When we caught her recently to change her radio-collar, she was in beautiful condition and had a new male cub (named Kent for obvious reasons) in the pouch.

Kent was three months old and sporting a coat of short, fine hairs.

From what little we could see of him, however, he looked a bit grubby because, unlike other marsupials, koalas don't clean their pouches until the cub leaves.

We also caught Shirley, Lyn's neighbour at Kentlyn, to change her collar.

Shirley is such an old hand at being caught that she's becoming a bit of a handful.

When Rob, high in an angophora, tried to persuade her into the

mac's koala club

catching bag he was a tad slow, allowing Shirley to latch on to the web of skin twist thumb and forefinger.

With her large, sharp upper and lower incisor teeth, she was able to impart huge pressure on the thin skin and Rob had to grimace and bear it (definitely no pun intended!) until Shirley let go.

Fortunately, female koalas' jaw muscles are not as massive as those of males and so Shirley was unable to penetrate Rob's leather gloves.

Nevertheless, she was still able to break and bruise the skin.

Shirley, too, was carrying a male cub in her pouch.

A bit younger than Kent, he has only a few sparse whiskers and eyelashes at this stage.

We've named him Stan after the person who so generously co-donated the money to produce the koala video

in which Shirley plays a climb-on role.

Shirley's older cub, Frank, put in an appearance this week too.

He was spotted by two separate callers just five metres from Georges River Road and 300m from his mum.

We were able to identify him by his coloured ear-tags and expect that, at 18 months of age, he's about to start his travels.

So keep your eyes open, especially if driving along Georges River Road!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from the Macarthur Advertiser office, from Quondong Visitor Centre, by sending \$24 to us at the university or by visiting our table at Riverfest this Sunday.

- STEVEN WARD and ROBERT CLOSE

This poor wallaroo didn't make it

ONE of the things Robert's family finds most difficult about his profession as a wildlife biologist is that whenever he sees a dead animal killed beside the road, he has to stop to identify it.

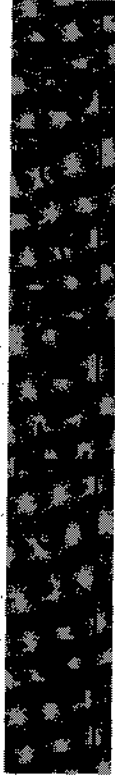
This can result in dangerous and disrupted journeys.

To a biologist, however, road kills are a valuable source of information about the animals in an area.

Recently, Robert spotted a dead animal on Narellan Road beside Mt Annan Botanic Gardens, near the water channel.

Closer inspection showed it to be a large, male wallaroo.

The name suggests some kind of cross between a wallaby and a



kangaroo, but kangaroos are defined by having a hind foot length of 25cm or more, while wallabies have foot lengths of less than 25cm.

Wallaroos exceed the limit and are sometimes known as hill kangaroos because of their preference for hilly country, particularly with caves and overhangs for shelter.

Males are a charcoal grey while females are the colour of a koala.

The dead animal possibly weighed 70kg and could have seriously damaged the vehicle

that killed it. We believe that the wallaroo came from a colony that lives naturally within the gardens.

Readers may remember a column two years ago in which we described a study by UWS students of this small population.

We suggested then that, as the colony grew, excess members would leave and strike out on their own.

What a pity this male had not ventured west along the newly opened wildlife corridor that extends from Mt Annan Botanic

Gardens through Narellan to the Nepean.

He could then have moved south to the cliffs along the river or north to the Blue Mountains.

Another local wallaroo was reported to us recently, when Robert was invited to speak to residents at St Helens Park about the wildlife to be found in their local bushland.

When he showed a picture of a wallaroo, it was immediately recognised by its size, colour, stockiness and relatively hairy face.

One large animal is regularly seen in its particular patch of bush by the residents when they stroll through the area.

Residents also see the smaller

swamp wallaby and there may be other species of wallaby there, too.

It all goes to show that we Campbelltown people are fortunate to have such fascinating wildlife living so close to us.

Few Sydney suburbs can boast such a variety of marsupials within walking distance of houses.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from *The Macarthur Advertiser* office, from Quondong Visitor Centre, or by sending \$24 to us at the University.

□ By STEVEN WARD and ROBERT CLOSE

Alby was a top attraction at Riverfest mac's koala club

OUR koala group had a display recently at Riverfest.

This was a community gathering at Koolagaya Park on Sunday, June 4, to celebrate and learn about Campbelltown's relationship with the Nepean and Georges Rivers.

The day was a great success with many people coming to enjoy the displays and the entertainment provided by local performers.

Alby, our stuffed koala, was a great attraction as usual, and we gave away a pile of Mac Koala Club showbags in quick time.

Lynn, our stalwart radio-tracker, prepared a family tree of our radio-collared females and all their offspring.

This tree made all the family relationships clear and helped regular readers of the column to understand the links.

We are not too clear, however, about how

our families of koalas interact in the bush.

Two weeks ago we reported that funny things were happening at Wedderburn.

Now the picture is becoming even more interesting.

Kerry, the first daughter of Franchesca, who had not been seen for more than a year, suddenly turned up in the corner of Franchesca's territory, close to the spot that we had last seen Victor, Sarah's almost grown-up cub.

We have no idea where Kerry's been living all this time, but we know that she would be almost old enough to have her first cub.

However, we could not see a bulge in the

pouch region. Meanwhile, Franchesca had charged several hundred metres across the valley to the other side of her range to where her other adult daughter, Sarah, was last seen.

This position was an unusual one for Sarah who had left her large cub, Elliott, 400 metres away in their usual area.

Following Franchesca's charge, Sarah retreated and moved back into O'Hares Gorge. What's going on?

We can only guess at this stage.

The fact that neither Sarah or Franchesca have new cubs in the pouch suggests that conditions may not be good enough for some

reason to allow breeding. All the moving about and jostling for position that we are seeing may be the result of the koalas trying to occupy the most suitable habitat to obtain the best food.

Alternatively, there is a male in the region and the ladies are preparing for a late breeding season!

One of the exciting things about studying animals is that we know that we will eventually gather enough clues to solve the problem.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996. To hear a koala bellowing, call 4620 3200. Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitors Centre, or by sending \$24 to us at the University.

■ **ROBERT CLOSE and STEVENWARD**

Koala trap abandoned

THE title of koala spotter of the year must go to Michael Bugeja.

He spotted an untagged koala from his parents' car as they drove up the road past Peter Meadows Creek at Kentlyn in the late afternoon.

This was an amazing feat considering that koalas can be extraordinarily difficult to see at the best of times.

Michael's parents must receive an award too because they pulled over at Michael's request and called us on the koala pager number, even though they were running late for an appointment.

They then waited for 45 minutes while Steven and I packed all our catching equipment and drove out to the site.

By this time it was dark and drizzling.

Michael desperately wanted to see a capture so they then waited while we made our first attempt.

The koala was only five metres up a slender tree and within flagging distance of our extendable poles, so we hoped that we could flag it down quickly.

Unfortunately, the undergrowth was thick and the noise we made while approaching the tree scared the koala up the tree beyond reach of the pole.

This meant a tree climb was required.

Climbing is a fairly slow job, so at that stage Michael and his family reluctantly left us.

Michael reminded us, however, of his naming rights and that if the animal was a male that it should be named Michael.

We gladly agreed and set out on the capture attempt.

Robert had to climb up an adjacent tree and flag the koala down to within reach of another flag handled by Steven on the ground.

The plan worked well and the koala took off down the tree.

mac's koala club

met the flag from below, Robert, high above the koala, lost sight of it in the dark background of the bush. Unfortunately Steven, manoeuvring the second flag from the ground, had set up a light shining towards the base of the tree to provide some illumination for the critical part of getting the koala into the capture sack, and was dazzled by the torch's glare.

In the confusion, the koala headed back up a second fork of the tree and out of reach of both poles.

At this stage the koala started a rather mournful cry.

We think this type of cry means that a koala is saying: "I'm just a youngster and no threat to you."

In NSW, regulations for koala captures require that capture attempts be abandoned when a koala cries, and so we called off the capture attempt.

Thus, we still don't know whether the koala would have been Michael or Michaela.

However, we ask drivers to be on the watch out for him/her as they drive along Peter Meadows Road and we thank Michael and his family for their help and enthusiasm!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, from Quondong Visitors Centre or by sending \$24 to us at the University.

The Macarthur Advertiser, Wednesday, June 21, 2000

Females jostling for best habitat

LAST week, Glenda Mandelson, the new organiser of Mac's Koala Club went out radio-tracking to meet Lyn and Shirley, the Kentlyn koalas.

Glenda wanted to find out for herself how the koalas lived so that she could make the newsletter more interesting for the club's 1200 members.

So she set off with Lynn and Kevin, our volunteer radio-trackers, and followed the radio signal of Lyn in tall bush behind the houses at Ruse.

While stopping for a cuppa, Kevin noticed a koala high in a bloodwood.

To the trackers surprise, Lyn's radio signal was leading them away from this animal.

Sure enough, the trackers soon spotted Lyn in a tall blackbutt about 100 metres away.

So who was this new koala?

It appeared to have no ear-tags, so Steven and Robert were called on the hotline to attempt a catch.

When they arrived,

mac's koala club

the wire ladder was strung up in the new koala's tree and Robert climbed 10 metres to the first fork.

When he waved the flag, the koala shot rapidly past him and on to Steven's waiting arms.

The koala was in fine condition and when we investigated her pouch, to our surprise and Glenda's great delight, we found a small hairy head peering out at us!

This cub, also a female, had a covering of short fur similar to that of Lyn's cub, Kent, whom we discovered last month.

Both are about three to four months old.

The new cub's mother, named Cheryl after Kevin's wife, must be about three years old to have a cub of that size, and presumably has established a home-range next to Lyn's.

It was fascinating to

find the two adult females so close together.

Is it a coincidence that earlier in the week at Wedderburn, Lynn (the tracker) found Francesca, Sarah and Kerry all within 100 metres of each other?

Perhaps at this time of year all the female koalas are jostling for the best habitat.

Whatever the case, it's great that we are still discovering untagged females and that the Kentlyn koalas are breeding so prolifically.

The discovery of Cheryl and cub certainly capped off a great day in the bush for Glenda!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Purchase copies of our koala video from The Macarthur Advertiser office, from Quondong Visitor Centre, or by sending \$24 to us at UWS.

■ Steven Ward and Robert Close

Molly makes reappearance on scene

OVER the past few weeks we have been astounded by the movements of female koalas in Wedderburn and Kentlyn.

Last week we had our greatest surprise yet - the re-appearance of Molly, our most famous koala, after an absence of two years!

Readers of our earlier columns, and watchers of our koala video will be familiar with Molly.

Her pinnacle of fame was when her photograph appeared in National Geographic at the height of the Holsworthy Airport controversy.

Her continuing story has been fascinating.

When she first appeared as a dehydrated youngster in a backyard at Kentlyn, she went to

Gaylene, a WIRES expert in marsupial care.

When restored to health, we released Molly, radio-collared, at Wedderburn.

A few months later we found her with a broken thigh bone.

So back to Gaylene she went.

Gaylene noticed that Molly sat in her tree with the injured leg hanging in such a way that the broken ends would knit

naturally.

So, rather than risk having her leg pinned surgically, Molly was allowed to cure herself.

Eight weeks later, the bones were healed and Molly was released back in her territory.

Several months later, we noticed that Molly's pouch was divided in two by a fold of skin.

This phenomenon had not been recorded in koalas before

Fortunately, at her next capture, we found that the pouch was longer divided and held a large female young (called Gaylene).

Soon after Molly's release the batteries of her radio-collar failed and we lost contact.

Although we conducted several searches, our efforts were in vain. Molly was re-discovered by Danny, a young student from the

University of Puerto Rico.

He was one of a group of 20 students who recently spent two weeks in Australia as part of their biological training.

Their tour and itinerary was organised by Wildscapes, a Campbelltown eco-tourism company.

The students were delighted to see Molly in the wild and to participate in the

capture.

But most of all, they were excited to see Molly's new cub. Danny, who was out of the pouch!

If you spot a koala, call us anytime on our pager 9962 9996.

To hear a koala bellowing, call 4620 3266.

To buy the koala video, send \$24 to UWS, PO Box 555, Campbelltown or contact The Macarthur Advertiser office or Quondong Visitor Centre.

Steven Ward and Robert Close

Fascinating story delight for all

A vision splendid of a bush haven

On Wednesday, July 15 a time capsule will be buried at the base of the Western Sydney Rotary Observatory at UWS Campbelltown campus. The capsule will contain a copy of the following message to be opened in 2050.

After 10 years of studying the koala population of Campbelltown, we have a vision.

In that vision we see koalas as regular visitors to backyards wherever houses confront bushland.

We foresee individual koalas and their territories being well known to residents, local primary schools and high schools.

Residents and students will protect the koalas, record their activities and family changes and take great pleasure from sharing their habitat.

We foresee the dispersal of koalas to places such as Smiths Creek, Camden, Mount Annan Botanic Gardens, and The

mac's koala club

University of Western Sydney, where the mature trees maintained or planted in the '80s and '90s will support stable populations.

These populations of koalas will in turn be a great attraction to tourists, who will appreciate the ease of travel from Sydney to see koalas in their natural habitat.

The tourists, however, will enjoy their trip to Campbelltown for other reasons besides the koalas.

They will come to walk and cycle beside the George River, where pristine bushland close to a large city will be a global rarity.

They will come for the unusual and

beautiful flora, and the attraction of the many bird species and other animals to be found in the sandstone vegetation.

Well-maintained bush tracks will wind their ways beside the river allowing wildflower walks, spectacular views and access to secluded swimming holes.

Unlike in 2000, urban run-off will be largely reduced and clarified before it reaches the river, thus allowing swimmers to enjoy themselves without fear.

Bicycle tracks will run through bushland from Appin to Liverpool, and there will be access routes to the tracks from all parts of Campbelltown.

Tourist and family groups alike will enjoy this freedom.

Is this vision hopelessly optimistic?

Can we hope that residents are capable of sharing this vision and working towards it?

Will the early decades of the next millennium mean

as the careless development of riverside bushland by more and more blocks of sprawling, high-speed roadways, more rubbish, and more vandalism?

Will we see the continued abuse of our sandstone vegetation and the loss of Campbelltown's finest resource and distinguishing character?

Will our koalas survive the next 50 years?

The choice today is ours.

Citizens of 2050, you will be our judges.

If you spot a koala, call us anytime on the phone 9963 9996.

To hear a koala bellowing, call 4920 3200.

To buy the koala video, send \$25 to us at UWS, PO Box 655, Campbelltown or contact The Macarthur Advertiser office or Geographical Visitor Centre.

J By Robert Close and Steven Ward

Look out for young Linda

I N February I wrote about Linda, a young female koala found by an Airds resident in the bush near Riverside Drive.

When we rang Linda her home was empty and we were not sure whether she was in the bush or in the area.

So we gave her two ear-tags and released her, hoping that other residents would see her and report her whereabouts.

Almost six months later, this is exactly what has happened.

Another Airds resident rang to say that Linda was hung up in a tree in a garden at the end of Riverside Drive, near the house of John Wilson, who we last saw in 1978.

We were sure that she was Linda because of the ear-tags and because of the distinctive koala facial pellets that fell on the concrete pathway beneath her tree.

If the person who found her could give us her name and address in Airds, along Riverside Drive and near the house of John Wilson, we would be most grateful.

What person could give us this information? The distinctive koala facial pellets that fell on the concrete pathway beneath her tree!



mac's koala club

If everyone who spots her contacts us, we can work out her home range and follow her life.

We would like to hear from any residents who have seen the distinctive ear-tags of Linda in Riverside Drive, Appin Road, Wedderburn Gorge or Appin Road, so they must have passed through Airds.

The person could also be a dog owner who could contact us if Linda is spotted and who would keep informed of her whereabouts.

The person could also be a dog owner who could contact us if Linda is spotted and who would keep informed of her whereabouts. We suspect dogs will be the greatest danger to Linda and her future.

John Wilson, who found Linda, is a good subject for study for students of Airds High School and John Warby Primary School. We are encouraged to contact us for help in devising study methods.

Linda is not the only koala to be reported from the Airds area.

We also reported a huge old male in Greengate Road, and another was seen in December near Ringers Road.

In addition, koalas tagged at Ruise have been seen at Wedderburn Gorge and Appin Road, so they must have passed through Airds.

The person who found Linda could also be a dog owner who could contact us if Linda is spotted and who would keep informed of her whereabouts.

To buy a koala tag, call 4529 2368.

To buy a koala tag, call 4529 2368. To buy a koala tag, call 4529 2368.

To buy a koala tag, call 4529 2368.

Drivers, beware of wanderers

A COLLEAGUE called us recently one morning to report a dead koala lying beside the northbound side of the F5 just south of the Pheasants Nest Bridge.

Robert immediately drove off to collect it as he had learnt from experience that bodies seldom stayed visible for long.

He was just in time!

As he drove south, before U-turning at the Mobil service stations five kilometres from the bridge, Robert noticed a car stopped beside the northbound lanes and a man walking back along the freeway.

Anticipating that the person had found the koala, Robert stopped

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and joined the man on the median strip, only to find him about to heave a young koala off the verge and into the median strip bushes.

A road patrol ute then pulled up. Jodie Webb, the driver, and her colleague had each seen the koala and had stopped to investigate.

Jodie mentioned that over the past two years her husband had seen

two other dead koalas in the area, one 400m south of the Mobil service stations and the other, ironically, near the speed camera at the Avon Dam turn-off.

In addition, we have received independent reports of four other koalas in the area.

So the local population must be of reasonable size.

Our koala, however, was a male in otherwise peak condition. His skin was not damaged and he was the beautiful ashey-grey that we associate with glowing good health.

We estimate that he was about three years old and probably had

just started his travels.

Although a collision ended his life, it did not end his story.

At the university we have already used his measurements to help design a koala trap and have taken DNA samples to assist in a project aimed to develop a DNA "fingerprinting" method from koala faecal pellets.

If this method works we will be able to survey koala populations simply by collecting the scats!

In addition, his tissue samples, skin and skull will eventually finish up in the Australian Museum where, no doubt, they will be

studied by biologists for centuries to come.

In the meantime, his death marks the beginning of the wandering season for young male koalas.

So drivers should be wary.

To report a sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from *The Macarthur Advertiser* office or from the Quondong Visitor Centre by sending \$25 to us at the university.

- ROBERT CLOSE and STEVEN WARD

How we retained a beauty spot

BACK in 1986 a land development company tried to subdivide an area at Wedderburn.

When the presence of koalas in the area was publicised, the resulting uproar led to a petition signed by 15,000 Campbelltown residents and the eventual scrapping of the developments.

The company involved presumably lost money as a result.

On the other hand, the community has retained an almost pristine river gorge (O'Hares Creek) of superb beauty.

Some people in the community would argue that there should be some development of Campbelltown's bushland areas.

In fact, like a lot of koala habitat near Campbelltown is in private ownership, with some of it being used as an informal site for the anticipation of future subdivision.

On the other hand, can income be derived

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for the community from leasing the land as koala habitat?

In recent weeks we have seen two examples of how our koalas can provide income for the community.

Both examples involved eco-tourist groups that spent time and money in Campbelltown.

They wanted expressly to see koalas in the wild.

So because Campbelltown has the closest accessible koala population to the Sydney CBD, they came here.

The first group was organised by Quabodong Tourist Centre and comprised The Friends of Toronto Zoo, with special interests in our diverse birdlife.

The second group consisted of biology students from the University of Puerto Rico.

They had spent two weeks in Australia on a program organised by a Campbelltown eco-tour company, Wildscapes, and the tour counted as credit towards their degrees.

Both groups were delighted with the experience of seeing koalas in the wild.

The Toronto group was led by Peter Kerry, while the Puerto Rican students spotted Molly and her cub, and assisted in their recapture.

Although the koalas near the high point of the Campbelltown visit for both tourist groups, they all enjoyed the outstanding and unusual vegetation and the scenery of the O'Hares Gorge.

Consequently, the two companies involved would like to make the forests a regular event.

Before that could happen, however, many issues must be sorted out.

For example, would regular visitors trample the bush?

How many visitors could the bushland sustainably cater for?

Would the koalas be unduly disturbed?

How would tours be controlled?

Would foreign visitors interested in weeds and/or fungi?

All these questions and others must be addressed.

Nevertheless, there is potential for the entire area from Wedderburn to Macquarie Fields to be a koala/bushland/river-side attraction with a financial return, which would affect the entire community.

To report a koala sighting, call the University of Western Sydney on 4639 3052.

To learn more about visiting the Campbelltown area, call the Friends of Toronto Zoo on 491 1111.

■ **STYLING: WENDY BIRCH**

Hugh gets heave from young ones

WHEN a Wedderburn family recently investigated, by torchlight, the persistent barking of their dogs, they found a koala in their garden.

It was only 20m from their house and was sitting in a spindly eucalypt only three metres above their heads.

The koala was still in the same tree the following day, so the family called us and described the situation.

We were intrigued that the koala had not moved during the night.

Normally, when forced by dogs or people to climb into unsafe trees, koalas will move to a taller, safer tree as soon as they can.

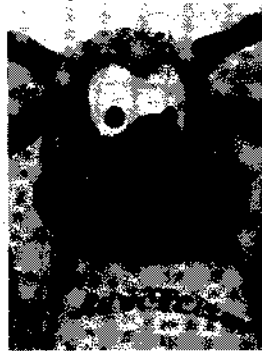
We guessed, therefore, that it was a youngster off on his travels, and was feeling lost and confused.

When we arrived, however, and waved a flag above its head, the koala completely ignored the flapping cloth.

This sort of behaviour is unusual for young animals.

Normally, they race down the tree, often leaping from limb to limb.

On the other hand, old males who have



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seen the world are not easy to scare, and often treat our flag with contempt.

Sure enough, when we finally captured the koala we found he was a 10kg male.

Though in reasonable condition, Hugh, (as we have named him), had cataracts on both eyes and his teeth were quite worn.

We assume, therefore, that he was forced out of his territory by younger males and up to the less fertile ridge-tops.

Our problem was that if we released Hugh near the houses, he would be in danger from cars and dogs, but if we released him in

nearby Pheasants Creek, he would be attacked by the younger males.

We compromised by taking him some distance from the houses but close enough, we hope, not to confuse him.

If, in fact, he is in exile, then we predict that wherever we release him he will reappear on the ridge-line near the houses.

So residents of Hodgson Close and Pheasants Road are likely to have a nocturnal visitor.

We (and Hugh) would be grateful if those residents would investigate whenever their dogs are barking, and ideally keep the dogs chained at night.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from *The Macarthur Advertiser* office, from Quondong Visitor Centre or by sending \$25 to us at the university.

■ by Steven Ward
and Robert Close

Eric's been anything but idle

LAST week we talked about Hugh, an old male kicked out of his territory by a younger, stronger male.

This week, we give the other side of the story - that of a young male, Eric, on his way up.

We have vivid memories of the day we first captured this feisty young bloke in 1998.

For a start, it was our first call to suburban Woronora.

Secondly, Eric was so high up a huge tree that we needed both of our 10m wire ladders tied end on end to get near him.

Lastly, he put up a

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tremendous fight before we could bag him and even then, he succeeded in biting Steven through the bag.

At that stage, Eric weighed 7.6kg and would have been roaming about trying to find suitable territory.

So we released him about 700m from houses in a nearby park and

hoped for the best. We supposed that he would keep moving until he found an area occupied by female koalas and their protective male.

Before he could settle in, however, he would have to kick out the resident male.

At 7.6kg, he would be too light and so would have to bide his time till he bulked up to more than 10kg.

Six months ago, we were notified that Eric was at Fahy Creek, near the railway line just west of the Pacific Highway between Yarrawarra and Loftus, and hoped he

wouldn't try to cross the Highway to the Royal National Park.

Apparently, he didn't, because two callers rang recently to say that Eric was in Cranberry Street, Loftus.

That means he's moved more than 3.5km since his first release, and we bet he's had some wild adventures since then.

Both callers said he looked huge.

So maybe Eric is ready to make a territorial challenge.

The trouble is that we don't know whether there are female koalas anywhere near Loftus.

With luck, however, Eric will find them if they're there.

We're sure we'll hear more of Eric's travels. To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from *The Macarthur Advertiser* office, or from Quondong Visitor Centre or by sending \$25 to us at the University.

■ By Steven Ward and Robert Close.

Female spotted in blackbutt

Mother and cub both doing well

OUR volunteer radio-tracker Lynn and Kevin, were searching for Shirley at Kentlyn when Kevin spotted a small grey shape in a tall blackbutt overlooking the Georges River.

No cartage could be seen, so Robert was called to the scene with the catching gear.

A cricket ball with a cord attached was then whirled over a fork in the tree and the wire ladder followed.

Robert was soon perched 15m up in a fork and a few metres from the koala.

The animal responded quickly to our waving flag and shot down the tree.

When it reached a spot beyond the reach of Robert's

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flag from above, yet too high for Kevin's flag from the ground, it stopped.

Robert then had to untie himself from the tree and struggle down the ladder with his gear until his flag could reach the stalled koala.

This did the trick and the koala was soon in Lynn's waiting arms.

Peering into the catching bag, we found a bulging pouch with a female cub packed in so tight that an arm was left hanging out.

The mother, whom we named

Irene in honour of the second of our video benefactors, was young and we suspect that the cub was her first.

Both were in top condition and after being measured and eartagged (Irene only), were returned to their blackbutt.

By this stage the cub was now out of the pouch and clinging with her sharp claws to Irene's stomach.

So it was rather bumpy for the cub and a difficult climb for Irene.

Once safely out of our reach, however, Irene stopped, the cub clambered onto her back and both looked back at us with amazement.

This is now the fourth mother with a large cub that we know of in the

Kentlyn area. And then the koala paper number rings another female with video has been spotted crossing Peter Meadows Road.

It's amazing to think that only 10 years ago koalas were almost unknown in the Kentlyn/Leumeah/Airds area!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, from the Quondong Visitor Centre or by sending \$25 to us at the University.

— STEVEN WARD and ROBERT CLOSE

Post-mortem reveals facts

A CLUSTER of students gathered around Robert recently in one of the science labs at UWS.

On the bench in front of them lay a dead koala, a young female not yet fully mature.

A resident from Yanderra (just south of Bargo) had reported that her dog had found it early in the morning.

Joy Hafey from Wirrimbirra Sanctuary had then collected it and passed it on to us.

The young koala was being examined to determine its cause of death and to save the skin, skull and some tissues for the Australian Museum.

As we removed the skin we discovered huge bruising in the chest region and sufficient damage to collapse a lung.

There was also some bruising on the head but no signs of tooth marks in the flesh.

So the dog was not the villain. In fact, the disturbed fur on the neck region looked as

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though the dog had carried the koala by the scruff of the neck to its owner.

We presume that the koala had been hit by a car, then staggered off to where the dog found it.

Here is yet another reminder to motorists to watch out and slow down.

All studies have shown that the number of koala mortalities rise proportionally with the speed limit.

Back with the dead koala, however, Robert turned the occasion into a lesson for the students in koala anatomy.

He first pointed out the incredibly large caecum. This is a sac-like tube, almost a metre long, found in the koala's intestine where the appendix is found in humans.

Scientists have computed that only 10 per cent of the koala's energy supply comes from this sac and they have always wondered why a tree-climbing animal would lug such a heavy burden up and down trees when it seems to have so little value.

The next thing for the students to note was the koala's almost complete absence of fat. This means less weight to haul up trees but also that koalas have no reserves of energy. If they are deprived of food for more than a day, say after a fire or during ill-health, then the koala may starve.

To report a koala sighting, call 9962 9996; to hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from *The Macarthur Advertiser*, Quondong Visitor Centre or by sending \$25 to us at the university.

— STEVEN WARD
and ROBERT CLOSE



SURPRISE... this koala was discovered in a cocos palm at Ruse.

Koala stranded up a cocos palm

WE usually use the phrase up a gum tree to describe someone being in trouble or confused, but for one young male koala, the expression up a Cocos palm would be more appropriate.

For that's where we found a rather confused looking fellow recently, sheltering from dogs in a backyard at Ruse!

We'd first received a call at noon reporting a koala sitting on a fence, apparently trying to avoid dogs.

Our tireless radio-tracker, Lynn, then spent the afternoon searching for the koala and talking to local residents, but in vain.

Then in the evening, Chris Laidler rang to say that he had a koala-laden Cocos Palm in his backyard at Ruse.

Lynn and Robert were soon at the scene and helped by Chris and his children, Tim and Justine, soon had the koala bagged.

He was an 8kg male, about 3 years old, and just approaching ma-

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promptly named Tim.

The koala was in fine condition, and we suspect he is trying to set up his own territory close to the area currently occupied by Lyn, one of our radio-tracked females.

It would be interesting to know who the mother of Tim the koala was.

Was he born locally, or has he moved in from far afield?

We normally eartag the cubs of our radio-collared females at the stage when they are clinging to their mothers' backs.

Sometimes, however, the youngsters leave their mothers before we can catch them.

Koala Tim is of the age that he might be the former cub of koala Lyn who escaped before we could tag him.

We can imagine our readers laughing at this last statement and saying to themselves that all koalas look alike, but when you see koalas often enough, you can detect differences in patterns of the colour of skin around the nose, and fur on the rump.

There are other differences, too, that are difficult to describe but which give a koala its character.

The marvels of modern DNA technology are such that the little plug of ear tissue we took from Tim while inserting his eartag will tell us whether Lyn is likely to be his mother.

To report a koala sighting, call the University of Western Australia hotline on 9962 9996.

To hear a koala bellowing, call 4620 3000.

Copies of our koala video can be obtained from *The MacArthur* advertiser office, or from Queensland Visitor Centre or by sending \$29.95 us

Linda may be looking for a mate

A FEW weeks ago we reported that a young koala named Linda was spotted in a back garden in Airds.

She has appeared again, spotted by Rebecca and Cindy Rodriguez, in a small clump of trees in the median strip outside their home.

Since we last saw her, Linda has moved at least 500m from Templeton Way, across Riverside Drive, presumably into the Kevin Wheatley Memorial Reserve, and then to a cul-de-sac off the inner circuit of Riverside Drive.

No doubt she had several scary adventures with dogs and cars on her perilous journey.

We wonder how many children playing in the reserve might have seen her if they had looked up.

Surrounded by houses and roads, Linda was

was in February.

At that time, it was empty, and her teats were small, so we predicted that she would be entering her first mating season this month.

We were eager, therefore, to inspect her pouch to check again.

Unfortunately, the pouch was bare.

It's early days, however, and because pregnancy can be somewhere between 35-50 days, she already may be pregnant.

On the other hand, she may have set up a territory in an area where males are scarce.

In fact, her wanderings into the middle of Airds may be in an unlikely search of a male koala.

We returned her to the Georges River Reserve near Moonbria Place - an area she

knows well - and released her into a comfortable grey gum. She scuttled up the tree and peered down at us from safety.

When will we hear from her next?

Will she bring pleasure to some other children in Airds?

One thing's certain, the two little girls, Rebecca and Cindy, will remember her warmly for the rest of their lives.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Centre or by sending \$25 to us at the university.

■ **By Steven Ward and Robert Close**

mac's koala club

clearly in danger, so we had to catch and move her.

Linda, however, had other ideas and leapt from branch to branch keeping as high in the small, bushy tree as she could.

But eventually, she came down and we took her into the Rodriguez house for an examination.

Linda was well behaved in the bag and Rebecca and Cindy were delighted to inspect her from close range.

What a story they had for school next day.

The last time we had inspected Linda's pouch

Life's tough for females in season

AS we mentioned last week, koala mating season should now be in progress around Campbelltown. It has definitely started at Lismore, because a friend, Linda Bunbury, recently wrote to tell me of this incident she witnessed: "I woke in the early hours the other morning to an unusual sound which my bleary brain eventually recognised as being made by a koala."

Then, following much scraping on the roof, the sound of claws on metal and some loud crashes.

I went to investigate, and found a male koala chasing a female up a small tree next to our house. She would jump off the tree on to the roof, swing on the guttering and jump two metres down to the ground, with him in hot pursuit.

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This went on and on, up the tree, the roof, the fence, around the yard, all the while, the female was screaming her head off until the mating finally took place in the ferns. — it sounded like he was murdering her!

Shortly after, he emerged from the ferns, climbed the tree and let out a triumphant bellow:

"She stayed in the tree until the next afternoon and one of them has been hanging around in another tree in our yard."

Very entertaining.

As you can see from this account, life for

a female koala sounds quite traumatic.

Readers with good memories may remember that some time ago, our Wedderburn koala, Molly, somehow broke her thigh bone.

At the time, we suspected the accident occurred during mating.

From Linda's account, it seems that our suspicions were quite plausible.

Life for wild animals, in fact, can be quite difficult.

Shirley, our female koala from Kentlyn, is currently nursing some sort of wound under her chin.

She also has lost her cub, Stan, who should have been out of Shirley's pouch by now and clinging to her back or belly.

It sounds, however, more likely that

Stan's disappearance and Shirley's wound are the results of a dog attack rather than a mating misadventure.

The white and black dogs we mentioned in last week's column roam through Shirley's territory and are likely culprits.

We appeal again to dog owners to be responsible.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Centre or by sending \$25 to us at the University.

■ Steven Ward and Robert Close.

Breeding season signals danger for Anne

CALLS are coming in thick and fast with the arrival of the koala breeding/migration season.

One was from Kentlyn, where a householder reported that her dogs had forced a koala up a tree in her front garden.

When we arrived, we found the koala only three metres up a small pine.

She looked rather dishevelled and was continuously shifting her position in the fork of the tree as though she were uncomfortable.

Ominously, there were clumps of fur on the ground at the base of the tree.

When we tried to flag her down, the koala ignored our efforts and seemed most lethargic.

When we eventually used a noose to

bring her down, she turned out to be a mature, untagged female with an enlarged pouch and an elongated nipple.

The state of the pouch indicated that she had a large cub somewhere nearby.

Because we could not express milk from the teat, we guessed that the cub was weaned and therefore relatively capable of looking after itself.

The dirt in the mother's coat and her unkempt appearance indicated that the dogs had harried her severely.

Our first task, therefore, was to inspect the koala to check for damage.

Though we could feel no broken

bones, she was clearly sensitive to our touch.

Apparently, most dogs will attack koalas by shaking them, in which causes severe bruising and pain.

Our next task was to take the koala (named Anne by the householders) to Campbelltown Veterinary Hospital.

There, Peter Brown confirmed that the koala was sore and sorry, but apparently not seriously injured.

He also noted a cataract in one eye.

Peter then gave her a fluid

transfusion in case she was dehydrated.

Following the transfusion we noted

a distinct improvement in Anne's demeanour.

Next morning, we released her in the Kentlyn bush far enough from the dogs to be safe, but not so far from her cub that she would lose it.

Anne climbed a tree without obvious difficulty, but immediately curled up and went to sleep.

No sooner had we left her, however, than two dogs appeared.

These dogs are white with black patches and have previously menaced us and others who walk in the Kentlyn bush.

We are distressed that the owners of these dogs have so little respect for the bush that they allow their dogs to roam.

Residents of Kentlyn are privileged

to live so close to the Georges River and its striking bushland.

With that privilege comes responsibility.

Clearly, that includes confining dogs at home during the day and tethering them at night.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala howling, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Centre or by sending \$25 to us at the University.

□ By Steven Ward
and Robert Close

—Macarthur Advertiser, Wednesday, September 27, 2000

Linda's coping with life

WE predicted Linda, the young koala who lives in the reserve between Airds and the Georges River, would have many adventures coping with humans, dogs and cars.

Sure enough, we were contacted by some people who had picked her up as she walked alongside Georges River Road. They had kept her in their laundry overnight.

When we were notified next day, we arrived to find her sitting on a pile of clothes in a room full of people and a dog. Apart from being bewildered by her surroundings, Linda seemed unharmed by her experience.

We released her back into her familiar bushland.

Not long after, we heard she was attacked by magpies near Riverside Drive.

A week later, she was reported near the Woolwash in an area threatened by a grassfire.

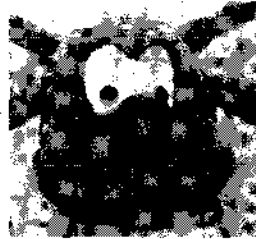
The caller said Linda was being hassled by children who thought she was in danger.

The same caller rang us the next day. They heard koala bellowing in the same area.

Lynn and Georgia, our two helpers, searched the area and found koala faecal pellets of two size groups.

These findings indicate a male koala is in the area and is presumably interested in our Linda.

In 10 days Linda had a wide range of experiences. She travelled across an extensive area of Airds;



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We ask Airds residents to keep a special look-out for her and call us immediately if they spot her.

A note of caution: the residents who picked her up were lucky not to have been scratched or bitten.

A male koala treated in the same way could bite off a human finger and rip flesh and furnishings.

Also, koalas have few energy reserves and being kept overnight without food could jeopardise their survival on release.

Lastly, many of the callers are contacting us by calling WIRES first. It is much better to call us direct on the UWS Hotline: 9962 9996. Then we can be on the scene in minutes.

We also would appreciate it if Airds community leaders could post this article in places where residents can see it and use it as a reference.

Copies of our koala video can be obtained from the Advertiser office, from Quandong Visitor Centre or by sending \$25 to us at the university.

An accident just waiting to happen

IT had to happen. A caller rang in recently to say he had hit a koala while driving on Peter Meadows Road.

This call followed a series of reports of koalas on this road, and in previous columns we have warned drivers to be careful.

In this instance, the driver had not been speeding.

Ironically, he was searching for a lost dog and his attention was diverted by what he thought was his lost pet.

When he looked back to the road, a koala was in his path and he could not avoid a collision.

After stopping, the driver was unable to find the koala but discovered the car's number plate had been knocked off during the impact.

Therefore, we assumed the koala was badly injured, so immediately went out with spotlights.



**mac's
koala
club**

It was all in vain. Sadly, a daylight search next day also failed to find the animal.

A few days later, we received another report of a koala crossing the same road and in the same area (just behind the

monastery).

This animal appeared not to be injured and carried a radio-collar.

We assumed it was Amanda, a female whose radio-collar malfunctioned in that area two years ago.

As the koala had been spotted at 9am, we had high hopes of finding it.

However, after two hours' searching by five people, all we found was disgraceful amounts of dumped rubbish.

Later in the day, our radio-trackers reported a collared koala about 1km away (near Coral Avenue).

Upon capturing it, we found this animal was Kevin, a male with whom we had lost contact three years ago.

He weighed a healthy 10.2kg and looked in good shape.

Male koalas are quite capable of walking a kilometre at a time, but it would be

unusual to cover that distance during the day.

So we remain unsure whether Kevin was the animal spotted earlier on Peter Meadows Road.

We then removed Kevin's old collar, we noted that there were no adverse effects of his having worn it for so long and released him back into his tree.

There's no doubt we'll hear from him again!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from the Advertiser office, from Quondong Visitor Centre or by sending \$25 to us at the University.

By STEVEN WARD and ROBERT CLOSE

Outfoxed by wily old male

RECENTLY we were outsmarted by a clever male koala at Mentilly.

The old boy was sprawled on a cable in a low bush, close to a fence and looking relaxed. People passing by didn't notice him. Fortunately, he was low enough that the flags on our extendable aluminium poles could reach him from the ground.

This meant that climbing the tree was not required, so we were hoping for a safe and speedy capture.

The catch started well with the koala climbing steadily down the tree as the flags waved above him, but two metres from the ground, he leapt across to a nearby tree and landed out of pole reach.

This meant Robert had to climb up after all to get within reach.

The koala then leapt again, this time to a dead limb that cracked under his weight.

Before he could fall however, the koala cleverly swung across to a neighbouring branch.

By this time, he had realised the flag could

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not hurt him and ignored it.

He also gave a playful bleating. We guess that koalas bleed to tell other koalas that they are not a threat.

It may also mean that the koala is under stress. One of our reasons for capturing koalas is that if a koala bleats and it is unlikely that he or she will be captured quickly we will call off the capture attempt.

So the wily koala escaped on this day, but perhaps we will hear more about him in the future.

Another caller reported that a female with a cub on her back had crossed Wedderburn Road about 50m north of the causeway.

We assume this is Martine, whom we saw several months ago on the other side of the Gorge. This was the first

time we have heard of a breeding female in this area, and it gives us confidence that the proposed development site at neighbouring St Helens Park also contains suitable habitat for breeding koalas.

Fortunately, Campbelltown City Council has voted against this development, but the case is yet to be heard in the Land and Environment Court.

We ask that people driving to and from Wedderburn be on the look-out for Martine.

Her territory spans the road and the causeway, and she will be very vulnerable to cars.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Advertiser office, from Quandong Visitor Centre or by sending \$25 to us at the University.

■ Robert Close and Steven Ward

Airds 'jumper' keeps us busy

ROBERT had just fired up his barbecue last Saturday and remarked to his family that the koala pager had not gone off all weekend, when, of course, it rang.

The message reported the name and number of the caller and that a koala was at Airds.

Naturally, we thought it would be the young female Linda, who has been roaming round Airds since January.

So we were soon at Airds on the edge of the reserve but right beside the houses.

There, only six metres up and on a side-branch of a redgum, was a beautiful young koala.

It had no eartags (and therefore was not Linda) and despite the group of admiring residents, seemed relatively relaxed.

As Robert approached the tree, the koala sensed danger and climbed the main trunk.

It seemed disturbed by the fierce wind which was whipping the tree-top to and fro.

In its indecision, the koala repeatedly jumped 1-2 metres from branch to branch and back again.

This rang danger bells for the catching

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club**

team, because young jumpers will sometimes attempt brave but foolish leaps.

Even though koalas are adapted to survive falls from considerable heights, there is always a chance of disaster.

Instead of climbing up, Robert sat by the tree hoping that the koala would climb down, but it climbed down only as far as its original branch and started leisurely feeding.

At that point, we called off the catch and went home to feed ourselves.

We left a number of residents keen to report on further sightings and delighted to have koalas at their back door.

Other calls this week have been to report Shirley's independent cub, Frank, who left his mum last February, and has now turned up in Smiths Creek Reserve.

He appears to be in glowing good health, but of course, is at risk from dogs and cars.

We have also received another report of a female (possibly Martine), with cub, crossing Wedderburn Road, high on the Campbelltown side of the Gorge.

These two are apparently in permanent residence there and are at great risk from cars. It is also very dangerous for drivers whose immediate reaction to a koala with a cub on its back could be to swerve.

The Gorge road, however, is no place to swerve and the results would be serious.

We ask readers in Wedderburn to spread the word to persuade people to be specially careful in the Gorge.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from the Advertiser office, from Quandong Visitor Centre or by sending \$25 to us at the University.

■ By **STEVEN WARD** and **ROBERT CLOSE**

It's koalas galore on the weekend

WHAT a weekend it was - Koalas galore.

The first caller reported that the Airds koala (see last week's column) was back in its tree.

Calls from the police, vets and wildlife rescue groups all reported the same animal.

Robert was with his students on a weekend fauna survey at St Helens Park, so we drove over and found the koala, looking very difficult to capture but quite comfortable, high in the redgum.

A catch was too risky to attempt, so we left it and returned to our survey.

Later in the evening another caller reported that, wearing welder's gloves, he'd captured a koala.

It had been running up Wedderburn Road, 50m south of the causeway, a place where we've had other captures - and one road kill.

The koala (named Alex after the captor) was a young, healthy male, so we gave him eartags and released him to continue his journey.



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Next morning, the students set out to find the female with a baby young that had been reported twice in recent weeks beside Wedderburn Road (see recent columns).

Our search procedure was effective and we soon discovered the koala and cub, high in a tree, not 10m from the busy road.

Robert was soon 15m up the tree, waving a flag hopefully above the koalas.

They came galloping down on the opposite side of the trunk, and Robert was unable to reach them as they ran past and up a tall side-branch.

There, they clung so precariously from a flimsy branch that we had to call the catch off.

Fortunately, we could spot the mother's eartags which identified her as Martine, a koala caught as a youngster near Wedderburn causeway more than two years ago and seen six months ago at the same place.

Meanwhile, Dave Harris rang to say that moronic teenagers were catapulting stones at the koala at Airds.

Fortunately, he and concerned residents drove the assailants away before any harm could be done.

The teenagers should note, however, that koalas are protected animals and classified as vulnerable; penalties for harming them are very high.

Not long after dark, Dave rang again to report that he'd stayed quietly by the tree at Airds to protect the koala, and found to his

delight that it was climbing down.

He was then able to wrap it carefully in a doona.

We arrived to find a quiet young female who really appreciated a cuddle.

We were concerned, however, about her condition and kept her overnight with lots of food in her box.

She ate heartily and next morning seemed in such improved spirits that we released her close to the river at Airds.

No doubt Campbelltown's residents will keep us informed of the movements of all four of these koalas.

Callers should ring the University of Western Sydney hotline on 0962 0096.

For koala bellowing, call 4620 3200.

Our koala video can be obtained from The Macarthur Advertiser, or from Queanbeyan Visitor Centre, or by sending \$75 to us at UWS.

By Steven Ward and Robert Close.

Cheeky Cindy

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IT was another active week for koalas in Campbelltown this week.

Firstly, Cheeky the koala captured from Airds last week turned up in the reserve off Tupple Place and the next day had crossed Riverside Drive.

She was hanging out in a small, vulnerable redgum, so we decided to capture her and move her to a safer spot on the edge of the Georges River valley.

Next day we received a call from Angela, a resident who had gone to check on Cheeky.

To her great surprise, she found a new koala at Cheeky's release point.

With the help of Angela and Michael Harris we soon had the koala captured.

It was a young female, about the same size as Cheeky.

We soon had her fitted with her ear tags and released back under a tree overlooking the river.

There are now three koalas living on the edge of Airds: Cheeky, Cheeky and the new one, Cindy.

Our next call was from O'Hara Road, Wedderburn where residents had followed the sound of a koala bellowing and discovered an untagged male koala not far from their house.

This is likely to be the same animal that almost wandered into a home in Bellbird Road a few days before.

Our biggest surprise, however, was to receive a call from Melanie Beattie, a former University of Western Sydney Macarthur student now teaching at Leumeah High School.

Melanie reported a koala up a tree

in the school's agricultural area.

We arrived to find a sleepy-looking fellow high in a red gum.

Its ear tags identified it as Frank Shirley's son from 1998.

Frank had left Shirley at Kentbury in 1998 and was recently spotted in Smith's Green.

The total journey is now 400m and we suspect that he'll have much further to go before he's big enough to fight his way into a piece of bush with a resident female koala.

We were faced with the difficult choice of moving Frank to a safer location, or allowing him to plot his own course.

Most of the students that we spoke to were thrilled to have a koala on site and wanted us to leave Frank there.

Others were worried that people might torment him if we left him at the school.

In the end we decided to leave him at the school knowing that students and the community would take an interest and pride in Frank and his movements.

Like other mobile young male koalas, he's sure to have some interesting experiences as he grows from 5kg to 11kg.

We would like anyone who sees Frank to call us on the koala hotline 9952 9995.

To hear a koala bellow, call 4620 3299 ah. The koala video can be obtained from The Macarthur Advertiser Office, Quondong Tourist Information Centre, or by sending \$25 to us at the university.

By Robert Close and Steven Ward

Eric has become a koala survivor

LAST week we reported that Frank, son of Shirley the koala from Kentlyn, had wandered across western Campbelltown and, to the delight of students, appeared in the agriculture area of Leumeah High School.

We've heard no news of him since then, so expect that he's continued his travels.

Young koalas leave their mother's territory when aged between one and two years and then wander for another two to three years until they grow big and cunning enough to find a suitable area (complete with females) for themselves.

When they leave their mothers they weigh about 5 kg and when big enough to defend a territory they weigh 10kg.

In those years of wandering and growing they learn how to cope with dogs and traffic, how to avoid predators and other dangers.

Of course many young koalas die in the process and that's why the animals reported to us as road-kills or dog-kills are usually young males.

We believe that more than 120 koalas live near the Georges River and its tributaries.

This means that probably about 50 young koalas will be produced each year, of which 25

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will be males. We've found that once koalas reach maturity and establish their territories, they tend to live long, successful lives (probably more than 10 years).

This means that more young male koalas are born than can settle back around Campbelltown.

So some of the youngsters will die and only the lucky and the strong will survive to force their way back into the best habitat.

Others will wander far and wide.

This week we had a report of a young koala at Dural on the northern side of Sydney.

This fellow was a long way from the nearest known koala colony in Ku-ring-gai Chase National Park.

We hope that Dural people will report to us his movements.

We also received news of Eric who has been moving through the Loftus area near Heathcote for the past year.

Our reporter thought he looked enormous and reported that he was bellowing furiously.

So Eric has become one of the lucky survivors and obviously feels strong enough to bellow his

superiority through Loftus.

We (and Eric) would be delighted if he has a female or two living in his area.

Long-term survival of koalas on the southern side of Sydney requires that there be several breeding areas scattered throughout the area.

This will ensure that when the inevitable fires sweep down the Georges River valley, some colonies in the south will be spared.

These will then rebuild the koala populations.

■ To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

■ To hear a koala bellowing, call 4620 3200.

■ Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

■ **By Robert Close and Steven Ward**

Dogs are a menace

ON the same day that Shirley's son Frank appeared at Leumeah High School, we stopped to check on Shirley herself, on the other side of Ruse.

Shirley is one of our oldest koalas and we have been following her life since 1993.

We found her clearly visible, just 15 metres from Georges River Road, and only 50 metres from where we originally found her seven years ago.

Unfortunately, Shirley's cub, Stan, who still should have been on her back, was nowhere to be seen.

His disappearance coincided with our observation of a wound on Shirley's chin.

So, sadly, we assume that Stan has been killed by a dog.

Koalas spend a surprisingly large amount of time on the ground as they move, almost every night, at least 50 to 100 metres from tree to tree.

At such times, the cubs are vulnerable to being wrenched from their mothers backs by predatory animals.

All our Kentlyn females have cubs on the back at present, so we make yet another plea for dog-owners to tether their animals at night.

It's not just the young koalas that are at risk, but all the wallabies, gliders, possums, bandicoots, echidnas and lizards that would spread through our Campbelltown bush if they were given the chance!

The law states that all dogs must be under the control of a competent person in public areas.

Unfortunately, many people neglect this rule and Campbelltown Council is besieged by complaints made by people whose lives are affected by roaming

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dogs. Twenty infringement notices are issued each day and three Council employees are on the road daily, dealing with complaints.

Another employee is involved with registration matters.

In total, therefore there is a high economic cost to add to the environmental and social costs of irresponsible dog ownership.

The social costs include attacks on citizens, usually children.

Somehow we accept such abuses without question.

The incredible thing is that attacks by domestic dogs on humans and native animals are wholly preventable!

Dogs must be tethered or adequately fenced!

There is no excuse for not protecting the public and the native fauna.

How many more of our local young koalas have to be mauled before the message breaks through?

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996. To hear a koala bellowing, call 4620 3200. Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

□ By Steven Ward and Robert Close

Quiet on koala front

AFTER a frenzied October with several koala sightings reported each week, November has been very quiet indeed.

The only call in the past two weeks was to report a large koala close to Broughton Pass where the Cataract River passes under the road between Appin and Wilton.

Over the years we've had several reported koala sightings from the pass.

However, we don't know the location of the breeding area that is producing these roaming koalas.

The caller was Keith Longhurst, a local historian, with an amazing collection of tall tales and true about the Campbelltown bush.

It was Keith, along with other members of Macarthur National Parks Association, who discovered the Wedderburn koalas in 1986.

This discovery was instrumental in preventing the development of O'Hares Gorge.

Keith and fellow bushman, David Homer (a man with an uncanny ability to find koalas), recorded many sightings in the

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Wedderburn region in those difficult days.

Their legacy is that O'Hares Gorge remains pristine, beautiful and accessible to people willing to leave their cars and walk a kilometre or two at Wedderburn.

In the lull between recent sightings, however, we were able to catch up with some house-keeping.

In this case, it was to capture koala Lyn's young son Kent (at Kentlyn, of course) and fit him out with his individually coloured ear tags.

Lyn's tendency to live with Kent high up in tall, inaccessible Blackbutt eucalypts meant that we had to wait until they were in a tree small enough to attempt a catch.

We were worried that Kent would leave his mum before we could give him his tags.

Fortunately, both koalas were perched in different parts of a

smallish blackbutt (only 25m high!).

A neighbouring grey-gum allowed us to climb close enough to flag the young fellow down the tree.

He came down at a gallop and weighed only 2.6kg, but was the picture of health.

Perhaps he will soon be joining his brother Frank (last seen at Leumeah High School) when he leaves his Mum.

Lyn is the same koala that appeared at Kentlyn Primary School in 1996 and has been producing cubs regularly ever since.

She features in our video which describes the life of Campbelltown koalas.

To report a koala sighting, call the University of Western Sydney Macarthur hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

■ Steven Ward
and Robert Close

A question of numbers

AFTER a quiet period at Airds, we were called recently by a local resident to the bush fringe that separates the suburb from the Georges River.

Here we found another young koala only four metres from the ground.

We could see no sign of eartags!

This means that in the Airds area there is yet another breeding female that we have not sighted.

So far we have eartags on 55 living koalas in our study area which extends to Mittagong.

Talking of Mittagong, we had another koala sighting reported from there recently.

There seems to be a population surge of koalas in that district.

It's difficult to tell, however, whether more people are seeing koalas, or more are reporting

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them. The same problem applies in Campbelltown.

That is, are we seeing an increase in numbers, or have koalas always been here in good numbers and just not recorded?

Steven will be addressing this problem in his thesis.

Back at Airds, we thought the catch would be an easy one, organised by pole and flag from the ground.

However, the young koala brushed past our flags with great disdain and forged up to the top of the tree to safety.

Reluctantly, we let him go, hoping that a resident would spot him later and call us when he moved to an easier tree.

We've had no reports of Linda recently.

That worries us because her disappearance coincides with persistent reports that a koala was deliberately killed.

So far we have not been able to talk to anyone who actually witnessed this tragedy.

If it did happen, we would like to know.

Linda has her own special eartags by which we can identify her.

So if a witness could ring the pager number and record the eartag colours, we would be able to verify the deed.

If a koala was killed, it is a very sad event.

Campbelltown has a marvellous bushland fringe that, in general, we don't appreciate.

The extent of rubbish dumping in the bush

indicates this ignorance.

The increasing awareness in the community of local koalas, however, is helping people to realise that we have much to be proud of in our area.

If one of our koalas was wilfully destroyed, it shows that we still have a long way to go.

To report koala information, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the University.

■ Steven Ward and Robert Close.

Two Kentlyn koalas fit pattern

AST week we mentioned the remarkable ability of David Hunter to locate koalas to locate koalas at Kentlyn.

His week he demonstrated this knack by finding two koalas at Kentlyn.

The first was a large male, perched low in a turpentine, with ear tags that identified him as Grant (or Grunt).

Grant was last seen courting Shirley about one kilometre to the west.

David also spotted a mature female, this time without ear tags, only 40 metres from Grant, in a tall blackbutt. The tree, however,

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was too high and with too many escape routes for us to attempt a capture.

Never-the-less, locating this female enabled us to fill in some gaps in our local knowledge of the distribution of females.

So we now have Linda in Airds, then Irene next to her, then Shirley, followed by this new female.

Next to her we have Anne (recently harassed by dogs). Next to Anne we have a gap, then Chesyle, then Lyn, then Amanda.

With each territory about 10-30 hectares we have covered an area from Airds to Peter Meadows Road.

David had just walked through the gap area between Anne and

Cherrie and reported much evidence of koalas.

That is, he saw many scratches and koala droppings.

So people walking the fire-trails between Darling Avenue and Old Kent Road should keep their eyes peeled.

You could help us fill in the gap!

It was interesting to find Grant sheltering in a turpentine tree.

This species is in the same family of trees as eucalypts and is very popular among our Kentlyn koalas.

The tree has dense foliage that grows close to the trunk.

So koalas can sit in a tree fork and be

protected from the sun and predators.

Our females particularly like to shelter in turpentine when they have young to look after.

The question is, do they eat it?

One of our Honours students, Alan Sluiter, recently examined this question.

He analysed tiny fragments of leaves in koala pellets to identify which trees were being eaten.

He was able to do this because the patterns of cells left in the undigested skin of the leaves is distinctive for all the local species.

He found that almost all the leaf fragments

were from the grey gum, whereas there was no sign of the turpentine.

So it appears the koalas are only using the turpentine for shelter and must move from the feed trees after feeding.

To report koala information, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong or by sending \$25 plus at the university.

By Steven Ward and Robert Close

The Macarthur Advertiser, Wednesday, December 13, 2000

Keep a lookout for Lyn

WHEN Lynn and Kevin, our tireless radio-trackers, went out last week to track Lyn, our Kentlyn koala, the radio-signal coming from the radio-collar had a different tone.

This changed tone meant that the collar had been motionless for some time.

That is, the collar had either fallen off, or the koala was dead.

The tone-changing device is a useful one because it means that the tracker knows to search on the ground instead of in the trees.

Never-the-less it gives the tracker an awful sense of foreboding in case something has

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happened to the koala.

So it was with relief that the trackers found the collar by itself on the ground.

Unfortunately Lyn was nowhere to be seen.

We would like to find her again so that we can continue to follow her life.

We would like people who walk in the bush between Georges River Road, Old Kent Road and Coral Avenue and the houses to the west to keep a special watch out for Lyn.

Her area is so large (30 hectares) that it would be very difficult to spot her ourselves.

She was last seen near the veterinary surgery of Chris Walker on Darling Avenue.

At about that time, Chris heard koala bellowing so we suspect that the collar was ripped off during some high level romancing.

It is perhaps not surprising that the collar would come off, as we put it on the koala fairly loosely, just in case a branch catches in the collar and strangles the koala. We would like to locate Lyn and replace the collar so that we can continue our observation of her life.

There have been few studies of semi-urban koalas throughout their lives and we already have a great deal of information about Lyn's movements, tree choice, mate choice, and breeding success.

To report a sighting of Lyn or any other koala, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the University.

Steven Ward and Robert Close.

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, December 27, 2000

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, January 3, 2001

Tumour kills Gary the koala

READERS will be saddened to hear that Gary the koala, whose sad tale was reported in the Macarthur Advertiser just before Christmas, has died.

Gary had been injured with an air-rifle pellet and was in the care of Terry Bellamy from Austral Veterinary Surgery.

Terry has had much experience with koalas and set Gary up in an aviary at her home.

Gary showed early promise, after antibiotic treatment, and ate readily from the eucalyptus cuttings supplied by Terry.

However, Terry had noticed a suspicious point in an X-ray of Gary's lungs, a strange tumour which eventually killed him.

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The tumour also probably caused Gary to be so distressed that he came down low enough in his tree that the fool with the air-rifle was able to see and shoot him.

Gary has not died in vain because Terry has sent off a sample of the unusual tumour to Taronga Zoo where it will be examined and eventually added to the reference collection of diseases of Australian native mammals.

This reference collection is

essential for developing an understanding of the medical problems of our unique fauna.

Another tagged koala turned up recently, after a long period in hiding, when David Homer reported an ear-tagged koala just a few metres from the edge of a bushfire not far from the Georges River near Airids.

It is sometimes difficult to correctly distinguish the correct colour in each ear, but we think that this animal is Marie, captured previously in October 1996 at Freres Crossing.

At that time she weighed 6.5kg but had no young in her pouch.

It is likely then that she was about two years old and ready for

her first cub.

She is now a mature and experienced female and may well be the mother of some of the young koalas that have appeared recently in the Airids region.

We are intrigued that she has moved a distance of six kilometres since her first capture.

Our research has indicated that most females set up their territories adjacent to their mothers.

Marie, however, has moved past the territories of Lyn, Anne, Shirley and Irene to set up her territory.

We would love to know more about her and also verify that we have the correct identification.

So we would appreciate it if any people walking through the bush between Airids and the river could keep their eyes peeled, and keep a lookout for the cartags - they can tell us so much!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, from Quondong Visitor Information Centre, or by sending \$25 to us at the university.

□ Steven Ward and Robert Close

Cocos palms not right for koalas

In a previous column, we had a photograph of a koala in a Cocos palm that was in a resident's backyard.

We expect that the koala was using the palm as a refuge from dogs and we don't seriously think that the palms are important for koalas.

In fact, we are sad that the Cocos palm has been planted so widely in Campbelltown (even in our own university).

We are sad because it is an opportunity wasted to plant native trees and shrubs that can be used by native species of animals,

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particularly birds.

The wise use of native species can be seen in Bradbury, which is now one of Campbelltown's most attractive suburbs.

Native trees and shrubs were planted widely before Cocos palms came into fashion, and the trees are now approaching 15-20 years.

Bird-life abounds in Bradbury and the

vegetation gives the suburb a cool, stately feeling.

We wonder what other suburbs in Campbelltown would be like if instead of the palms there were eucalypts, paper-barks, angophoras, grevilleas, banksias and casuarinas.

Certainly, the koalas on the edge of the city would be pleased because they use a variety of species for food and shelter.

Shirley at Kentlyn was last seen in a large Christmas Bush!

Two other reasons for disliking the Cocos palms became evident

recently. The first results from the hardness and number of the seeds that are now being produced in plenty by the mature palms.

When mowed with a rotary mower, these seeds can be ejected with great force at adult knee-height and at eye-height for a toddler.

The second reason became clear to us when we were searching for koalas in the bush recently at Wedderburn.

Not far from the road we found large piles of cuttings and seeds from Cocos palms that

someone had dumped in the bush.

Out of one pile were sprouting 20 young palms.

Is this to be another weed scourge for the bush as all of Campbelltown's mature palms begin to set seed?

The seeds are likely to be carried by water and our experience shows that they will germinate readily.

We ask owners of these plants to dispose

of the seeds in their council vegetation wheeler bins.

To report a koala sighting, call the University of Western Sydney hotline on 9962-9996, to hear a koala's belowing call 4620-8290.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Queensland or by sending \$25 to us at the university.

□ Steven Ward and Robert Chase

Eye to eye with a koala

ON the last day of the year, our friends at Airds called us to report an untagged koala on the cliff edge above the river.

They were excited because the koala's tree was below the level of the cliff.

Consequently, they found themselves looking directly into the eyes of the koala.

Sure enough, when we arrived at a spot of breath-taking beauty overlooking steep cliffs and the tranquil river, the koala was only four metres away from us as we stood on the cliff-top.

So near but yet so far!

The cliff was so steep that Robert had to use a rope to climb down to the base of the tree.

Our flag-wavers, Lynn and her husband Peter, then had to be tied securely to trees because the edge of the

mac's koala club

cliff was so treacherous.

Eventually we were ready and the flagging started, driving the koala almost, but not quite, into the arms of Robert waiting below.

Eventually Lynn had to climb down to join Robert at the base of the tree before we could complete the capture.

The koala was a small female that, to our surprise and delight, had a tiny baby, looking like a pink jelly-bean, in her pouch.

This baby was about one week old and will grow in the pouch for another six to seven months.

Hopefully we will

capture it again before it leaves its Mum so that we can eartag it and follow its life for the next 10 years or so.

Kieran, the young lad who spotted the koala then claimed his naming rights!

We decided to use a different spelling - Keeran - because Robert has another koala named Kieran in a different project.

So lets hope that Airds residents see plenty of Keeran over the years!

Another caller mentioned that she'd been disturbed by the coolness of the response she'd received when she rang the Koala Hotline. She'd expected the phone to be answered rather more enthusiastically.

The pager company, however, employs people to answer the phones who merely pass

on the caller's details to us.

These people know nothing of the project and I guess it must be difficult to stay continually warm and friendly on the phone.

Nevertheless, we rang the company to inform them and they will do their best to improve the service.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

Robert Close
and Steven Ward

Echidna goes to university

A SPINY visitor to the university recently aroused some interest as it ambled between the buildings.

The animal, of course, was an echidna, one of the world's most interesting and unusual mammals.

Its official common name is the short-beaked echidna, a name that distinguishes it from the long-beaked echidna, now restricted to the highlands of Papua New Guinea.

The beak is, in fact, a toothless mouth fitted with a pair of horny pads for crushing insects.

The scientific name of the Australian species is *Tachyglossus aculeatus* which means spiny swift tongue.

This is an apt name because besides its obvious spines, the echidna has a tongue which can shoot out 100 times per minute to snare insects in the sticky saliva on the tongue's surface.

Robert was called to

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the scene and found the echidna trying to burrow in the soil beside a building.

He applied firm pressure to the echidna's head and was then able to grasp the tip of its backfoot as the echidna braced against the pressure.

Once the backfoot was grasped, the echidna could then be removed from its burrow and placed in a cardboard container for transport to a bushier part of the campus.

The cardboard container did not hold the echidna for long, however, as the probing beak soon found cracks between the flaps and once the beak was in the crack, the powerful digging claws soon enlarged the hole

Like its fellow monotremes (mammals which lay eggs), the platypus, the male echidna has a spur on the ankle of its hind-legs.

Robert was unsure about picking the echidna up by its hind-leg because, unlike the platypus, the spur does not have a functional poison gland attached to it.

Once the echidna was picked up, we could see the indentation of the pouch on the underside of the echidna, which showed that the animal was a female.

We did not want to move the echidna far, because, like female koalas, she has her own familiar home range.

So we released her near the creek where the Cumberland Plain Woodland is still surviving and watched her as she burrowed in to shelter.

Echidnas are common in the Campbelltown region.

We recently had a call

on the koala pager number about an echidna that appeared at a school in Airds.

Here again is evidence that Campbelltown is surrounded by an array of fascinating animals that appreciate our marvellous bushland.

If we protect that bushland and the creeks and rivers that support it, future generations will also be able to enjoy seeing our fascinating spiny, swift-tongued echidna.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9886.

To hear a koala bellowing, call 4620 3799.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

□ Robert Close and Steven Ward

Where are the koalas?

Where are they well into the quiet time for koalas.

Steven has found repeatedly that the number of koala sightings reported to us from the public drops away dramatically after a hectic time in September and October.

Where are the koalas? The answer is that most of them are still in the same places, but just keeping out of sight.

However, the younger ones may have wandered out of their parents territories.

One young fellow, last week, wandered across Heathcote Road where it crosses Deadmans Creek near Lucas Heights.

Unfortunately, a car hit him, and by the time he was delivered to a WIRRES carer, he was in a very sorry state.

Blood vessels had burst in his eyes, his skull was dented, and one arm was badly swollen.

Moreover, his general condition even before the collision was poor because his muscles were not as plump as they should have been and his claws were worn.

These factors indicate that he probably had wandered some way before the accident.

mac's koala club

Perhaps he came from Campbelltown.

Some of our tagged young animals have travelled that distance!

Despite his dismal state, he's not giving up without a fight.

Young koalas have to be tough to survive to maturity.

The WIRRES carer reports that he sat on her lap and ate and ate and ate.

He also is using the swollen arm.

So perhaps it is only lightly fractured and not completely broken.

Let's hope that he has no internal injuries.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996, to hear a koala bellowing call 4020 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$35 to us at the University.

□ Steven Ward
and Robert Close

Island paradise for koalas

KANGAROO Island is a large island, 120km by 50km, which lies 12km off the coast of South Australia. It is home to 5000 koalas.

These koalas are derived from about 20 animals brought 60 years ago from a small island off the coast of Victoria.

Numbers are increasing so rapidly that the South Australian Government is overseeing a scheme where koalas are captured, sterilised and then released on the mainland.

This is costing about \$200 per animal and is barely keeping pace

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with the population growth of the island's koalas.

Robert visited the island recently and was interested to look at the problem first-hand.

He found a fascinating island, free of foxes and rabbits, and until white settlement in the early 1800s, free also of human influence.

Aboriginals were present 5000 years ago

when the region was still connected to the mainland, but, like the carnivorous Quoll and several other species, including the koala and platypus, were unable to survive when the land became an island.

So free from fire-stick farming, the island and its inhabitants have remained remarkably natural.

Most of the island is covered in dense, low eucalypt bushland only two to three metres high.

This land is unsuitable for koalas which prefer the taller woodland found beside the creeks which occur every 20km.

The koalas are confined to these areas and as their numbers

increase, they eat the leaves faster than the trees can produce them.

The tree then slowly dies.

This slow death can be seen as dieback where the external limbs die first and the lower limbs later.

If nothing was done about the koala population on Kangaroo Island, the tall sugar and manna gums would slowly die off around the creek lines and with them would kill the koala population, thereby probably repeating what happened 5000 years ago when the koalas previously disappeared.

It remains to be seen whether the Government's expensive scheme to

reduce the population will work.

There are some people on the island who would like to see koalas harvested and their skins sold as part of the island's economic resources. Is this a feasible option?

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

□ Robert Close
and Steven Ward

Koalas spotted

ALTHOUGH February is a slow month for Campbelltown koalas, there have been a few interesting sightings.

Firstly, a male koala with no eartags was seen twice near the top of Wedderburn Gorge on the Campbelltown side.

This is where Martine and her new cub were last seen.

We remind motorists to be especially careful as koalas often run along that road rather than diverge into the bush. This behaviour makes them doubly vulnerable.

Secondly, while searching for Lyn (our old female from Kentlyn) who had thrown her radio-collar, our trackers found Georgia instead.

Georgia is one of Lyn's grown-up cubs who left her mum in November 1998.

Like most of our daughters, she has set up next door to her mother.

We find it amazing that she has lived there for two years without being spotted by our trackers or bush-walking members of the community.

It shows how difficult these animals are to

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spot in the bush.

It also shows that females will squeeze into the available bushland on the edge of Campbelltown.

Because they cannot push westward into the housing area, there is likely to be some jostling for position.

We predict that koalas will be reported from Long Point eventually.

Thirdly, a caller reported braking for a light-coloured koala in the middle of Peter Meadows Road, 50 metres from the creek.

The koala then ambled off into the bush.

A pale koala has been reported from here previously but we are not sure if the colour is an optical illusion of the glare of headlights reflecting off the normally ashy-grey coat.

Readers may recall a previous report from a motorist who hit a koala at that same area.

Searches at the time failed to find the koala

and so we hoped it survived.

Let's hope that the latest caller saw the survivor.

Another koala was not so lucky.

The animal that we reported recently that was hit on Heathcote Road near Sandy Point, unfortunately, died after two weeks of care.

The WIRES carer was bitterly disappointed because the koala appeared to be doing well.

We suspect the head injury was more serious than we thought.

We would like to remind motorists to take special care in koala areas particularly in places where the road crosses creeks or rivers.

To report a koala sighting call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

□ Robert Close
and Steven Ward

Breeding worry at Wedderburn

IT'S catch up time for our koalas with radio-collars!

We like to change collars every six months so that we can check on pouches and condition.

Over the course of our studies, the technology has improved such that battery life has increased from eight to 15 months.

When the time has come for a collar change, we wait until the koala is in a tree which will allow an easy catch.

So when we found Sarah (from Wedderburn) in a shady Banksia we were delighted.

This allowed us to flag her down from the ground!

Although Sarah

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had put on about a kilogram in weight and was in much better condition than when we had previously caught her, her pouch was empty and rather dirty.

The dirt indicates that she will not breed in the very near future.

So although the breeding season has a couple of months to run, Sarah will have to shake a leg.

If she fails to breed this year it will be for

the second year running. This information is consistent with Steven's feeling that the habitat at Wedderburn is not as good for koalas as that at Kentlyn.

Steven's measurements are showing that female koalas from Wedderburn are lighter and breed less often than those from Kentlyn.

This is a fascinating finding as it shows the importance of the bushland between the houses and the Georges River!

Sarah was the first cub of Francesca, who lives in the neighbouring gully.

The latter was the next to be caught when we found her

one hot morning in a low Sydney peppermint gum, and thought we were in for an easy catch.

Francesca, however, thought otherwise and fought us all the way into the catching bag through which she cunningly bit Robert in the chest.

He now sports twin bruises on his sternum where the upper and lower incisors gripped!

Like Sarah, Francesca had also put on weight since last year and looked in beautiful nick.

To our great delight, we found a furless cub in her pouch, about two months old.

Of her previous cubs, Victor is now two years old, Kerrie

three, and Sarah, five. In six months time we'll catch the new cub while it's still on its mum's back, name it, ear-tag it and release it.

And so our knowledge of the local koalas will gradually grow.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala hallowing, call 4620 3296.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the University.

- Robert Closs and Steven Ward

Koala cops bird lecture

IT was the shrieking sulphur-crested cockatoos that showed us where the koala was perched.

The birds, apparently, had seldom seen a koala before and were clustered around, giving him a good talking to.

This fascinating scene took place in a front garden in Neal Street, Appin.

Our records show that only two other reports have come from Appin itself, both from Kennedy Street (near the Oval).

The first was in April 1998 and the second in March 2000.

Both were large animals, probably males.

A Neal Street resident, Jane Wilson, had spotted the latest koala walking along the road in the early morning last week and called us immediately.

By the time we arrived he had sheltered high enough in a tall blackbutt to make a capture difficult.

While we discussed a plan for the capture, we noticed that the koala had quietly moved behind the tree.

Then, thinking that he was unobserved, he quietly began to climb down the tall trunk.

Robert quickly donned gloves and approaching the tree from the opposite side, crouched motionless, eyes down, at the base of the tree. He waited until the koala jumped from the trunk before making a move, and the koala was soon in the capture bag.

The animal, named Neal (after the street) weighed over 8kg and had an active gland on his chest which showed that he was a mature male.

This gland secretes a

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powerful smell and is used by males to mark trees to indicate their presence to other koalas.

After fitting Neal with eartags, we released him in bushland close by.

Research has indicated that moving koalas out of their familiar areas is more dangerous than leaving them close to the point of capture, even if that location has dangers such as traffic or dogs.

As Neal climbed high in the release tree, we were amazed to see that birds (Noisy Miners this time) again mobbed him. We have seen little of this behaviour at Kentlyn and Wedderburn where koalas are relatively common.

We would be grateful if Appin residents could investigate unusual activity from birds because it may indicate a koala. Please notify us on the UWS hotline 9962 9996 as we would like to know whether there is a breeding colony near Appin.

Look for ear-tags too, as we would like to hear of Neal's movements.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

■ By Steven Ward and Robert Close

Shirley is still going strong

WE always worry about catching Shirley to change her radio-collar.

Readers of Mae's Koala Column should remember Shirley.

We have followed her life, in a patch of bush beside the Georges River Road at Rusé, since September 1993 when we caught her as a teenager.

Her more famous cubs have included Bill, who wandered across the Holsworthy Army Range to Alford's Point, and Frank who we last saw in the grounds of Leumeah High School late last year.

Unfortunately, her latest cub, Stan,

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disappeared from her back, a victim we suspect, of a dog attack.

We worry about catching Shirley because she is so experienced that she totally ignores our catching pole and the waving flag.

She also has bitten her captors twice. One bite, despite Robert's gloves, left a permanent bump on my finger!

The only way we can catch her is to pass a rope with a soft, non-tightening loop over her head and then pull gently until she climbs close enough to grab.

The problem with this method is that should Shirley scramble around the limb and not directly down it, she can effectively tie a knot with the rope around the limb.

The hapless climber must then clamber up into the topmost branches to unwind the rope and secure the koala.

Obviously, we would only use the loop if we were certain we could always climb high enough to unravel the

rope.

During our expedition to change Shirley's collar last week, all of the above happened except that, this time, Shirley wasn't able to secure a bite.

The considerable effort, however, was all worthwhile when we found that Shirley was in excellent condition despite her considerable age (almost 10 years).

She weighed over 8 kg, her coat was thick and grey, and her eyes were clear and bright.

We guessed from her good condition that she would have a cub in the pouch.

Sure enough, a furless babe was squirming in

the pouch, about two months old. Lets hope this survives the dogs!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the University.

As of March 26, we will have a display of the doings of Shirley and her friends in the Campbelltown Library display area.

Life on the wild side not much fun

A CLEAN koala skull lies on the table in front of us.

It comes from the animal that we reported recently which was hit by a car on Heathcote Road.

This koala died after two weeks of intensive care.

The WIRE'S carer was particularly upset because the koala had been eating well and seemed to have no other injuries beside a bruised head and a broken, now pinned, wrist.

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A post-mortem revealed nothing but a generally skinny condition.

So it was with great interest that we examined the skull after it was cleaned.

On the left side of the skull above the eye was a small but sharp

depression where the car had hit, and the cheek-bones were lightly fractured and slightly depressed.

On the right side of this skull, however, the second molar (grinding tooth) was cracked in two and one half was driven deep into the bone of the upper jaw.

In fact, there was a hole in the jaw extending through into the nasal cavity.

The row of molar teeth on the damaged side were covered in black plaque while the teeth on the other side

of the row were polished with use. Obviously the koala had not been using the damaged side.

At first we assumed that all the injuries were caused by the impact of the car.

However, closer inspection of the skull showed that it was deformed.

The right side of the skull (with the undamaged teeth) had grown faster than the left side thereby bending the whole snout to the left!

The movement was

so great that the front incisors (cutting and grasping teeth) of the top and bottom jaws no longer met properly.

Could this abnormal growth have occurred in the two weeks between the collision and the koala's death?

Our feeling is that two weeks were insufficient for such a growth.

Therefore, we suspect that the poor old koala had been injured some weeks or even months earlier, perhaps shot in the mouth with an air-rifle.

This wound would have so affected his eating that he would have grown skinny and weak.

He then would have been pushed about by bigger, stronger koalas into the unfriendly world of cars and people where he would have been a slow moving target for motorists!

This story shows yet again that life in the wild for a koala is often not much fun, particularly when humans are around.

It also shows the value and fascination of

skulls. We would like community members to notify us of any koalas, living or dead by calling the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200. Copies of our koala video can be obtained from The Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the university. Our koala display goes up at Campbelltown library on March 26.

■ Steven Ward and Robert Close

There's still lots to learn about koalas

OUR koala display is now set up in Campbelltown Library and will be there until April 6.

The display shows a map of all the places where we have found koalas, and gives the details of all the cubs born to our radio-tracked females.

Visitors will also see photographs of these females and their cubs.

For those interested to learn how to

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recognise koala signs (scratches and droppings) we have examples of each.

We hope people will be motivated to go for a walk in

Campbelltown's marvellous bushland

and look for the signs and perhaps even see a koala.

We have also put on display some of the interesting koala skulls, a radio-collar and photographs of koala research in action.

If visitors are interested to learn more about our Campbelltown koalas and the research we are conducting, they can then borrow our video, Koala Tales, from the library.

Students conducting research projects on Campbelltown koalas will find the file we have placed in the library (search on the computer listing for Wedderburn koalas).

This file contains photocopies of most of the relevant documents relating to the Campbelltown koalas and also a collection of the Mac koala columns which now date back to October 1996.

Visitors to the

display may wonder why we are studying an animal that one would think is so well known.

However, despite the koala being one of the world's most famous wild animals, there is still much to learn about it.

For example, some researchers estimate that there are only 60,000 koalas in Australia, while others suggest that there are 600,000 in Queensland alone.

How can there be such a difference of opinion?

The answer is that koalas have been well studied in very few areas and because koalas are so difficult to spot, estimates of actual numbers are actually guesses.

Until we know the details of koala distribution, numbers and ecology in lots of places like Campbelltown, then estimating the total population will always be guess-work.

You can help our work by reporting any koala sighting to the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or Visitor Information Centre or by sending \$25 to us at the University.

■ **By Steven Ward and Robert Close**

Family's repeat visitors

TWO interesting calls came in on the pager recently.

The first from the Norris family on Georges River Road who reported that a koala was back in the same tree that they had reported a koala in several months ago.

Both koalas were untagged and we suspect that both reports were of the same animal.

If so, this family is lucky - their home is probably part of the home-range of a koala.

The family can expect more visits!

The second call was from Rob Michie who found a young koala wandering up the road on the Campbelltown side of Wedderburn Gorge.

This is a dangerous road for koalas and several have been hit there.

So we hope that motorists will take special care and slow down in the gorge and its approaches.

We suspect that the koala is Martine's baby.

Martine has been living in the gorge for three years and when last we saw her in September, her baby was still with her.

Now independent, this cub will be very vulnerable to cars as it wanders about trying to find a suitable territory.

A third interesting sighting came to us from the Macarthur branch of the National Parks Association.

This report was of a spotted-tailed quoll in January along Lysaght Road at Wedderburn.

This quoll is

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tiger-cat, but is really a carnivorous marsupial from the same family as the Tasmanian devil and the thylacine.

This unusual animal is quite uncommon near Sydney and we would like to verify this sighting.

So if anyone at Wedderburn spots an unusual, brown animal with white spots, about the size of a large domestic cat but with a long spotted tail, please notify us.

Wedderburn residents might hear a strange sound like a blast from a circular saw.

So if residents are losing chickens, check small holes in the fence of the chook yard and let us know.

We would try to trap the intruder to check its identity (before releasing it of course).

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the University.

■ Steven Ward

Pruning may be a better option

ONE of our small pleasures as we enter the university each day is to check a 20cm wide tree hollow in the limb of an ancient red gum that stands by the road.

This hollow has been the nesting place for cockatoos, galahs and even wood ducks.

The ducklings have to jump out of the nest, before they are able to fly, and float the 10 metres down to the ground, relying only on their feather-down to form a kind of parachute.

One day we even saw a large goanna peering out of the hole!

To our dismay we discovered recently that the limb with the hole had disappeared, cut cleanly with a chainsaw back to the main trunk.

Such holes can take 80-100 years to form and now it was gone.

Gone too was an entire 25 metre red gum, cut off at the base.

This tree had been the regular home of a family of magpies and countless grass parrots for years.

Both refuges were sacrificed because of a perceived danger of falling limbs.

In our opinion, less drastic pruning could



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have solved the problems while still maintaining the resources for the birds.

But there is a more important reason for protecting large, mature, native trees than to save nesting sites.

That reason is salt and much of the Macarthur region is prone to salt problems.

Where saline water rises to the surface it can damage concrete and other building materials.

Imagine house slabs with concrete cancer.

Bitumen roads and vegetated areas can also be seriously affected.

Some housing in the Campbelltown area has already been damaged.

Trees prevent salt problems by keeping the water table from rising to the surface and bringing with it dissolved salts.

The tree's roots extend down to the water table and as water evaporates from the leaf surfaces in surprisingly large volumes, the underground water level is kept low and out of the topsoil.

So we need as many large trees as we can keep.

They will benefit birds, koalas and humans!

This example is one of many where the disturbance of natural conditions can have unexpected repercussions.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

**By Steven Ward
and Robert Close**

Doubting Karl spots Wedderburn koala

A CALL came in on the koala hot-line on Easter Sunday to report a koala in Spring Creek, 200 metres from the Wedderburn causeway of the Georges River.

The caller, Karl Hahn, a self-confessed Doubting Thomas, admitted that he had formerly never believed that koalas lived in the area.

His reasoning was that he had spent much time in the St Helens Park bushland without seeing koalas.

Karl is not the only resident who was a non-believer.

There are several long-term community members in the region who maintain that if koalas exist at all they must have been brought in to the area by greenies.

Steven's research shows clearly, however, that koalas were always in the district.

Genetic studies of koala DNA confirm that Campbelltown koalas can be distinguished from



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koalas of any other district in NSW.

So the reason that Karl and the other disbelievers have not seen koalas is because the koalas are very difficult to spot and because the density of koalas is low (less than one per 10 hectares).

Karl could not see eartags on the koala he spotted, so we expect

the koala was Martine's cub who was sighted on the road near the causeway three weeks ago.

If it's a male cub, it is likely to wander either up or down the river and may travel more than 20 km.

However, if it's a female cub, we expect that it will establish a home-range near the causeway.

If so, it is likely that Karl, in his bushwalks near the Georges River, will spot it again.

If it's in a suitable position, we'll attempt a catch and hopefully tag our 59th Campbelltown koala.

Karl also reported other native mammals in the Spring Creek area: a group of four swamp wallabies, and an echidna.

He saw these animals while walking a narrow track which winds along Spring Creek from Woodlands Road to the causeway through 1.5 kilometres of dense but beautiful bushland.

Unfortunately the

creek carries the storm-water from the newly developed areas of St Helens Park and parts of Ambarvale.

This storm water is a rich brew of rubbish, oil, detergents, lawn clippings, fertiliser and dog-droppings.

The rubbish collects on the creek banks while the other material flows into the Georges River, leaving it stained and polluted.

How sad it is that such beautiful areas can be so badly damaged by thoughtless people.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

For copies of our koala video, contact The Macarthur Advertiser office, or Quondong Visitor Information Centre or send \$25 to us at the university:

■ Steven Ward and Robert Close

Big koala visits temple

VISITORS to the recent Campbelltown Show would have seen Lynn Coxall looking after a display featuring our koala work and providing information about our radio-collared koalas.

Three people spoke to Lynn about their sightings of koalas and we have now recorded that information on our large database.

The most unusual of the reports came from a staff member of the temple on Junction Road, opposite Leumeah High School.

He reported that a big, untagged koala occasionally enters one of the temple buildings and the most recent visit was the previous week.

The koala's visits cause great excitement amongst the resident monks.

Coming from Thailand, the monks

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find the visits a special novelty.

At first they had to be restrained from trying to pat the koala and feeding it rice!

The temple borders Peter Meadows Road from where we have recorded many koala sightings and two car impacts.

So presumably, the temple koala was seeking a little peace and meditation away from the cars, trail-bikes, rubbish and dogs.

We hope that he continues to visit and bring pleasure to the monks.

The other two reports were of koalas at Wedderburn Road, one on the southern side of

the causeway and the other on the northern side, four and six months ago.

On one occasion, the koala ran along the road in front of the observer's car.

We have heard of this behaviour several times on that road, so motorists should be aware.

The Wedderburn Gorge continues to be a source of koala activity.

Karl Hahn rang to say that he had seen a koala again in the same area as we reported in last week's column.

Then Barry and Pat Durman cleverly spotted a koala from their car as they drove out of the gorge towards Campbelltown.

Lynn and Robert went out to check and found what we think was an untagged male koala high in a heavily scratched grey gum.

A catch was out of the

question because he was perched up 25 metres and 15 metres out on a side branch of an enormous, 35 metre tree that was two metres around the base.

The koala looked quite mature so he may be a mate for our resident female, Martine.

We would like anyone who spots any of these gorge koalas to ring us immediately on the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre, or by sending \$25 to us at the university.

□ Steven Ward and Robert Cross

Lots of birdlife to study

A REGULAR theme of the Mac Koala columns is to tell readers of the diversity of animal and plant species which live so close to us.

We have tended to concentrate on stories of the furry animals of our local bushland and have neglected the birds.

The Macarthur region, however, is also rich in water birds because of the closeness of Sydney's two biggest rivers, (the Georges and Nepean) and because of the many surviving old farm dams which supply the food and shelter necessary to maintain them.

Our first year biology students have just completed a study of the species living on the flood basins at the university.

These dams support many marvellous water birds, the most striking of which is a pair of black swans nesting in the bulrushes.

The most numerous species are the wood ducks, sometimes called the maned geese because of their brown

mac's koala club

crests and goose-like beaks.

Other ducks are the Pacific black duck and the chestnut teal, the male of which has a brilliant green head.

Most visible are the purple swamp hens with their bright red beaks, purple breasts and flicking white and black tails.

Smaller and blacker, but still red of beak, are the dusky moor hens while the coots are of similar size and shape but with a grey beaks.

Skinniest are the black-winged stilts with their long, long legs and matching elongated, thin beaks.

Feeding on fish, frogs and insects are two species of cormorant, as well as the white-faced heron and cattle egret.

Matching the diving skills of the cormorants are the little Australian grebes that dive and vanish for several

seconds at a time.

Then singing in the bulrushes are the tiny reed warblers, while the welcome swallow and the fairy martin swoop across the surface for tiny insects.

White ibis are occasional visitors.

Different species come and go from year to year.

Students last year also noted the yellow-billed spoonbill, the tiny banded dotterel, the pelican, the white-necked heron and the little egret.

This year, however, we have seen much greater numbers of the other species.

Few other places have so many different species so readily

accessible, so bird watchers are welcome to come and pause a while and share the sights with our students who often retreat to the lake side as a break from their studies.

Some day we hope that koalas will be in the trees there too!

If you spot a koala, call us anytime on the pager 9962 9996.

To hear a koala bellowing, call 4620 3200.

To buy the koala video, send \$25 to us at the University or contact The Macarthur Advertiser office or Quondong Visitor Information Centre.

□ Steven Ward and Robert Close

Hunt on for koala witnesses

IT is now more than five years since Mac's Koala Club was set up in October 1995 to support Steven's research.

The club now boasts 1600 members and is still growing.

A monthly newsletter is sent out to members, with games, competitions and news of our now familiar koala females.

We would like to give members of the club the opportunity to ask us questions that we could answer either in the weekly column or in the newsletter.

So if you have any burning questions about the Campbelltown koalas or other local fauna or flora, please write to Mac c/- The Advertiser or to us at The University of Western Sydney, Locked Bag 1797, Penrith South DC, NSW, 1797.

We received an interesting call recently from a reporter from the Penrith Star newspaper.

She reported that a former worker on the Australian Defence Industries site at St Marys had seen a koala with a cub on its back at the site in the late 1970s and early 1980s and that other workers also had seen the koalas.

The reporter asked us if the site contained suitable habitat for koalas and if so whether it were possible that the koalas could still exist without being sighted regularly.

Our reply was that the site consisted of Cumberland Plain vegetation which includes the Forest Red gum, a species which is usually a favourite with koalas.

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club

Moreover, our experience in Campbelltown is that residents can live for years without knowing that koalas regularly visit their gardens.

So, on an area as huge as the ADI site, it is quite possible that koalas may still exist without it being generally known.

What is needed is a survey of the most likely patches of red gums by searchers familiar with the distinctive faecal pellets that koalas tend to leave close to the tree bases and the scratch marks that the koalas make on smooth-barked gum trees.

We are now starting the procedure of trying to arrange a suitable search.

If any reader has worked on the ADI site and could confirm the sighting, we would be delighted to hear from you.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Centre or by sending \$25 to us at the university.

□ Steven Ward and

The Macarthur Advertiser, Wednesday, May 16, 2001

Appin Road a horror

IT'S a terrifying experience walking beside Appin Road at 9.30pm on a Thursday.

As the cars hurtle along the tree-lined corridor, the high beams dazzle the eye and every car seems to be headed straight for you.

To a koala, crouched in the centre line of the road as cars pass to right and left with the lights throwing wild shadows on the ghostly spotted gums and gnarled ironbarks, the sight must be blood-curdling.

Yet, one poor koala exposed himself to just that trauma last Thursday and Saturday nights.

On the first occasion, Keith Godfrey stopped his car in the middle of the lane, put on his emergency lights and hustled the koala off the

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road and into a small tree.

Keith noted the koala's paw seemed damaged.

He then contacted Robert Close, who searched the roadside with a spotlight to find the koala, but in vain.

On the Sunday morning Robert Kimbery reported he had found the koala - again sitting on the centre line of Appin Road!

He stopped and, emergency lights flashing, held up a long line of traffic while he

wrapped the hapless animal in a rubberised blanket.

Robert then took the damaged, but otherwise healthy, full-grown koala off to vet Mark Fetterplace at Ingleburn, where close inspection showed bruising to the groin and an expected fractured wrist.

The koala is being held in a special enclosure awaiting an X-ray on Monday.

We anticipate the koala will be held in care until its wrist is healed.

Then the animal will be released in bushland near its capture point, but far enough from Appin Road to avoid more collisions.

We have now had several reports of koalas crossing Appin Road, including two we tagged in Ruse and Kentlyn.

It is clearly time to have some koala warning signs along Appin Road.

The signs should be of a walking koala and carry our University of Western Sydney pager number 9962 9996.

We would ask motorists to call us immediately.

Despite the many people who must have seen the koala on Appin Road, only one person, besides Keith and Robert, called us.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

□ Steven Ward and Robert Close

Why life's often grim for koalas

In last week's column we told the story of a large (10kg), male koala that sat down in the middle of Appin Road on two different nights.

Since then vet Mark Fetterplace has given the koala a thorough examination and X-rayed its grossly swollen wrist and damaged pelvis.

The X-rays showed that the bones of the hand and wrist were severely decomposed, consistent with their being cancerous.

This injury was very tender to touch and must have been causing intense pain for the koala whenever it tried to climb.

In addition, the koala

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had severe bruising around the hip bones, a fractured pelvis and a severely bruised groin area.

It appears that a car had run over the poor animal's hips.

The discovery of the cancerous wrist explained what had been something of a mystery.

We had wondered why a fully grown, mature male (estimated 6 years

of age) would be wandering at this time of year in an area that was not (as far as we knew) a koala breeding area.

Other koalas that we had seen on Appin Road were younger males who had just left their mums and were roaming in their search for a new place to live.

This older male, however, should have had an established home-range.

We expect, therefore, that the koala's cancerous wrist had made him less able to fight off other males and as a result he had been forced out of his area, across Appin Road, and into unknown territory.

Adjacent to the area

where the koala was discovered is a small creek leading 200m down to the Georges River.

We expect that if we searched this area we would find the male koala that forced him out and probably females as well.

We were now faced with the problem of what to do with the injured koala.

Although his pelvis and groin might eventually heal, his wrist would always be immensely painful and would grow worse.

Climbing would become increasingly difficult.

Moreover, if we put him back beside the Georges River, his old

enemy would force him out again.

Who knows, perhaps he would finish up back on the central lines of Appin Road.

So rather than risk his continued suffering and a possible accident we decided to euthanase him.

It was sad to make the decision but we felt that the alternatives were not justifiable in terms of animal welfare.

This story shows yet again that life for a koala can often be grim.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

By Steven Ward and Robert Close

Airport koala alert

LAST week we told of an injured koala who, when herded off Appin Road, came back two nights later and sat on the middle lines of the road.

Today we report a koala that was sitting in the middle of the airport for light aircraft at Wedderburn at 3pm.

When Glenda George hustled it off the strip, it returned and again sat out in the runway.

Fortunately the airport was not busy and neither koala nor planes suffered.

As with the Appin Road koala, the airport koala's strange behaviour was probably a result of illness, injury or old age.

We expect that the koala will reappear near the airport.

If so, we hope to catch it and find out what the trouble is.

A young koala with no troubles turned up recently in Ruse.

This was Tim, who readers will remember,

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was photographed in a Coeos Palm in a Ruse backyard last year.

Tim is now in beautiful condition and was found by Wendy Fares not far from where we released him last year.

He was in a huge grey gum which he was sharing with a splendid female koala (unsagged).

When we attempted to capture her, she moved into the canopy of an adjoining tree to escape us.

Another call came in from Karl Hahn who now spends his bush walking time looking into the tree tops.

He again spotted a koala near the junction of Spring Creek and Georges River and took

great pleasure in sharing his good fortune with two other bushwalkers who were walking the Spring Creek trail.

Further news came in from Warrimoo in the Lower Blue Mountains where koalas were seen in Terrymount Drive.

Unfortunately, the caller declined to leave a name or telephone contact so we were unable to verify the call.

We ask callers to ring the University of Western Sydney hotline on 9962 9996 as soon as they spot a koala and leave a name and contact number.

To hear a koala bellowing call 4620 9200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

Steven Ward and Robert Close.

Our friend Shirley's still making news

A MARVELLOUS photograph of our famous koala, Shirley, with her latest cub appeared recently on page five of a major Sydney tabloid newspaper.

The accompanying article described how Shirley had survived a major fire in her territory, the regular presence of trail bikes, dogs beneath her favourite trees, and the constant danger from cars and yahoos.

The article said despite these

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difficulties, Shirley and her fellow female koalas at Campbelltown still manage to produce a young every year with the result that the population seemed to be thriving.

All the above is true, but the article left the reader with the feeling that the koalas will survive in Campbelltown no matter what we humans can throw at them.

Nothing could be further from the truth.

The reason that Shirley is doing so well is because her area contains a blend of soil types that allow her to be so healthy.

The soil enables her small patch of bushland

to contain the right mix of food trees and shelter trees that give her the required nutrients and shelter.

In addition, her area fronts the Georges River, so her regular male visitor Grant can move from female to female along the river without having to cross roads.

Likewise, her cubs can move along the river when they leave, without encountering people, cars or dogs.

So Campbelltown's koalas depend on the soil, vegetation and presence of the Georges River and creeks that run into it.

If any of these components are damaged then the koala colony will not survive.

The surviving bushland must be maintained for this reason.

Conserving this area will protect not only koalas but a variety of

other animal species as well. Another tagged koala, Kevin, turned up this week.

He lives in Lyn's territory in Kentlyn and we last saw him in October last year.

On this occasion he was sitting in a small tree bellowing his heart out.

This is unusual because the mating season is still some months away.

If you want to hear what a strange sound it is, call 4620 3200.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

□ Robert Close
and Steven Ward

Close score kept on our koala behaviour

INTERESTING insights into koala behaviour are emerging from Steven's studies.

For example, he has shown that koalas are easier to spot at Wedderburn than at Kentlyn!

Steven discovered this by the following method: every time we radio-tracked a koala, we recorded a score from one to five according to how hard it was to spot that koala in the tree.

Easily spotted koalas were a given low score (that is, one or two), and well-hidden koalas a score of four or five.

When Steven tallied up the scores, he found that 62 per cent of Wedderburn sightings had a score of one or two and 38 per cent had scores of three, four or five.

At Kentlyn, by contrast, only 27 per cent of the radiotracking

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observations had scores of one or two and 73 per cent had scores of three, four or five.

Thus, the Kentlyn koalas had many more of the higher scores, which means that the Kentlyn koalas were harder to find than those at Wedderburn.

What would make a koala want to hide?

There appears to be two likely explanations.

The koalas at Kentlyn live close to houses, or sometimes even in gardens, whereas those that we tracked at Wedderburn lived some distance from houses.

Thus, the Kentlyn koalas may be deliberately hiding to avoid humans with dogs, or yobbos that

throw stones or light fires.

Other factors, however, have occurred to us, which may explain the difference.

Firstly, Kentlyn koalas produce cubs more frequently than do the Wedderburn animals.

So the Kentlyn mothers may be hiding more often to prevent their cubs from being attacked.

Secondly, the Kentlyn koalas spend a lot of time resting in a thick, bushy tree called a Turpentine.

Steven's work shows that the koalas don't use the Turpentine for food, so we assume they are used instead for shelter from the weather or from predators.

Wedderburn koalas, however, don't have the option of using Turpentine, as the trees are relatively rare.

Whatever the case, it's no wonder that the more readily spotted Wedderburn koalas were discovered long before the tricky Kentlyn ones.

The Kentlyn koalas' ability to hide also explains why so few of our radio-collared koalas are spotted by residents.

As an example, Lyn from Kentlyn dropped her radio-collar some months ago and no one has reported her since.

So please keep your eyes open and call us immediately on the pager on 9962 9996.

To hear a koala bellowing, call 4620 3200.

To buy the koala video, send \$25 to us at the university or contact *The Macarthur Advertiser* office or Quondong Visitor Information Centre.

□ STEVEN WARD
and ROBERT CLOSE

Kevin is still on the move

AST week Kevin was bellowing in a small tree during daylight.

This week he was spotted another 500 metres along Georges River Road.

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Readers of this column will remember his name going to

October 1995 when he was captured as a young but mature male near the corner of Old Kent Road and Georges River Road.

If we want to check

on his history, however, we don't have to thumb back through clippings of past columns.

Steven has made checking easy by constructing a massive data base which now contains more than 2000 entries of community sightings

and radio-tracking observations. The data base tells us that we have 30 records of Kevin, most of them from radio-tracking between June 1997 and February 1998.

He has been reported only four times since we removed his radio collar in 1998, so two sightings in two weeks is unusual.

All Kevin's sightings occur in an area of about two square kilometres from Darling Avenue north to Peter Meadows Road and on either side of Georges River Road.

He must now be at least eight years old and has spent all his time probably looking down, unnoticed, on people who live next to the bush at Kentlyn.

Unfortunately, Steven and Lynn came back quite disturbed from Kentlyn last week. They had been conducting vegetation studies of the bush and what they found has

them worried. In bushland adjacent to houses they found lots of dead trees and others with evident signs of borer.

They also found distressing amounts of weed invasion, particularly where there was water run-off from houses.

In other places there was soil erosion and rubbish dumping. Such degradation was also recorded in bushland of the

Barrenjoey Peninsula of northern Sydney where the koala population has dropped from 70 to six since 1952.

So residents of Campbelltown's bushland must take steps now to prevent a similar decline.

Those people have the privilege and joy of living close to the bush. They also have the responsibility of looking after it. You can help our

work by reporting any koala sighting to the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

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□ Steven Warren and Robert Cross

Shocking life of Brian

BRIAN Fitzgerald could hardly believe his eyes when he saw a koala inside the Busways depot at Airds last week.

Some local lads, worried that the koala was being zapped by the compound's formidable electric fence, had alerted Brian and he then called WIRES who called us.

We're not sure how the koala broke into the compound, but it was clear that he couldn't escape without a shocking experience.

So we had to catch him whatever the cost.

The koala, high in a slender Peppermint gum, had other ideas and treated the waving flag with disdain.

When we tried to bring him down with a loop on a rope, he somehow repeatedly slid the loop off his head.

After the koala teased us for almost an hour, Robert finally climbed a ladder, grabbed him and slid him down the trunk to the waiting hands of Ryan and Brian.

The koala, now named Brian after his finder, weighed in at 8.3kg which means that



LIFE OF BRIAN . . . Robert Close releases Brian the koala at Smith's Creek after being found trapped at the Busways depot in Airds.

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he is mature, about four years old, and has been independent of his mother for about two years.

However, although he is in excellent

condition and is obviously very confident, he is not yet big enough to take on a top male.

After we gave him his coloured eartags (he is the 60th to be tagged!) we released him near the depot and beside Smith's Creek and the eastern ends of St Thomas More School and St Patrick's Girl School.

This area has a surprising number of large trees, but is

completely surrounded by houses.

Where did Brian come from?

We have not yet found breeding females in Smith's Creek, so we assume that Brian walked from the Georges River through housing in Airds.

It's not a huge journey and readers may remember when we found the koala, Linda, in Cheviot Place, which is not far away.

Perhaps she was headed for Brian!

His story shows that we may expect to see koalas anywhere in eastern Campbelltown wherever decent stands of timber remain.

Let's keep what trees we still have!

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To hear a koala bellowing, call 4620 3200.

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■ By Steven Ward and Robert Close.

Abnormality discovery 'first'

WHENEVER we capture a koala, we follow a check-list of things to do.

Firstly we weigh the animal and measure the length of its head.

Then we note the colour and condition of the fur and the state of the eyes and bottom.

We then feel the bulge of muscle on the shoulder blade and give it a score. No bulge means poor condition.

Next we look at the teeth (carefully) to look for wear on the molar surfaces. This allows us to estimate age.

If the animal is a male we then measure the size of the sternal gland, a small gland in the middle of the chest which is large, oily and smelly if the male is fully mature.

Finally, we investigate the pouch if

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the animal is a female, or the testicles if a male.

We do all the examination with the koala in a bag. Koalas appear to relax once they are in the bag, so we merely peel back the opening to reveal whatever part of the koala we want to look at. The pouch or testicles are often difficult to look at because they are generally at the bottom of the bag.

Moreover, because the koala's back legs are short, the claws are well

placed to scratch human hands reaching in to measure or investigate!

So last week, when we were examining Brian, a young koala that turned up in the Busways depot at Airds, we were tempted to omit the testicle examination.

Fortunately, we persevered and discovered that one testicle was tiny, while the other was enlarged.

This is the first such abnormality we have discovered in Campbelltown koalas.

This problem is very common among koalas in Kangaroo Island where the current 5000 animals are descended from a mere 26 original koalas. The cause of the abnormality is thought to be inbreeding.

So might Campbelltown's koalas also be inbred? This will

be one of the questions UWS science masters student Grace Hey will be investigating.

Grace has just started her second year of study and will be looking at Brian's DNA with great interest and comparing it with the DNA samples that we have been collecting over the last 10 years.

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■ By Steven Ward and Robert Close.

We're in koala lovers heaven

IT'S been a great week for catching up on old koala friends.

First there was Brian, the Smith's Creek koala, who went to school following his release two weeks ago.

Students at John Warby Primary School were delighted to welcome him on the grounds.

We would like all the students and residents of Airds to keep their eyes out for him.

Another old Airds koala made a surprise reappearance too.

Will, captured beside Greengate Road in 1995 was spotted for the first time since then in bushland behind houses in St Helens Park.

Given that Will was an adult when we caught him, he must now be at least eight years old.

This find is further evidence that our Campbelltown koalas are surviving well and also that they are difficult to see.

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Next we heard that Eric had appeared in a front yard at Loftus.

This was his first sighting for a year.

Not long after receiving the call about Eric we were called to a koala beside Aberfoyle Road at Wedderburn.

This turned out to be Hugh, who we had captured a year ago in Hodgson Close.

Hugh was in a tree in an area that locals say is marked for development.

Then the most exciting turn-up of them all!

Lyn, from Kentlyn and her large and almost independent son, Kent, appeared in a backyard not far from Kentlyn Primary

School. We were excited to find Lyn, because we had found her radio-collar on the ground six months ago and we were afraid that she had come to harm.

To our great relief, however, she was in fine condition and had the cutest little cub, Rimas, sitting on her stomach.

We restored Lyn's collar and released her and Rimas back in the garden.

Next morning she was 500 metres away.

Thanks to all those who called us to report the sightings.

Remember, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing call 4620 3200.

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□ With Steven Ward and Robert Close.

Fruit bat flies into stormy debate

SINCE last week's frenzy of koala sightings, we have had no calls.

This apparent lack of koala activity, however, means that we can talk about another animal that feeds on eucalypts - the grey-headed flying fox. This animal, also called a fruit bat, feeds mainly on blossoms of gum trees and related species such as banksias and paperbarks.

It also eats fruits of a variety of native and introduced species.

As it feeds and flies from tree to tree, it pollinates the native species and also spreads seeds. This behaviour

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makes it an important part of bush-life and vital for the long-term survival of our forests.

Unfortunately, the bat also eats fruit from orchards and this causes problems for the orchardist who is forced to cover his crop with expensive netting.

Many orchardists also shoot the bats and Chris

Tiddeman, a bat researcher, estimates that 100,000 bats are illegally killed each year.

This killing, added to the continued clearing of bat habitat, means that the numbers of grey-headed flying foxes are falling rapidly.

As a result of this decline, the bat has now been formally listed as a threatened species in NSW.

In an effort to find solutions to the problem of protecting both the orchards and the bats, The Royal Zoological Society (people interested in our wildlife) has organised a forum of scientists,

orchardists, wildlife managers and community groups to brainstorm the issue.

This meeting will be addressed by representatives of all these groups.

A local orchardist, John Bicknell, whose controversial letters on the topic often appear in this paper, will be one of the many speakers.

The public is invited to the meeting which will be held in the theatre, William St, Australian Museum on Saturday, July 28 from 9am to 5pm.

Registration is \$40 for non members of the society, which includes lunch and morning tea.

To register, ring the RZS office on 9969 7336 and leave your name.

For program details call Dan Lunnay on 9585 6489. It will be a fascinating and hopefully fruitful day.

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By Steven Ward and Robert Close.

Numbers are up

TWO weeks ago, we reported a cluster of sightings of several koalas.

It surprised us that all animals were ear-tagged because normally we encounter untagged koalas fairly often.

So we wondered whether at last, with 60 koalas tagged, we have now tagged most of the koalas close to town.

Sometimes the tags can be difficult to see, as Wendy Dickey found when she discovered a koala in her garden at Kentlyn.

When we arrived we used binoculars to spot

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dark ear tags, well hidden in the koala's hairy ears.

The colour identified the animal as Kevin who has been roaming the Kentlyn area for at least eight years.

We've always wondered how he could survive the many dogs that also live at Kentlyn.

Wendy gave us an insight to this question when she described how she watched Kevin respond to the attention of her two dogs that had bailed him up.

Kevin was standing upright with his back one metre from a tree as he faced the two dogs, turning from one to the other and brandishing his formidable claws, bellowing loudly all the while.

Wendy also gave us some clues about whether koala numbers are increasing around Campbelltown.

She has lived all her life at Kentlyn and roamed the bush with her cousins as a kid and never saw a koala.

In just the last three years, by contrast, we have sighted several animals in her street.

So are numbers

increasing or are we just looking more closely?

We believe that the former applies, but we will be taking careful note of the numbers of untagged animals that we find.

As an example, two untagged males turned up last week - one young male at Wedderburn, and a big male on Peter Meadows Road at Leumeah.

We also had a call to Airds, and Robert peered up at what appeared to be a small koala in an upper fork.

As he watched, however, a thin tail appeared with a white tip on the tail.

This feature identified the animal as a ring-tailed possum!

These animals usually sleep in a communal nest called a drey.

So what was this possum was doing out by itself we don't know.

Report any koala sighting to the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Queensland Visitor Information Centre or by sending \$25 to us at the university.

With Steven Ward and Robert Close

All quiet on koala front

SINCE last week the koala hot-line has been quiet with only one reported sighting, between Hilltop and Balmoral.

We've had occasional reports in this area and we would dearly love to know where the breeding area is. Any information would be welcome.

We mentioned last week that a symposium would be held over the weekend on managing the grey-headed flying fox in NSW.

Speakers included the scientists who had declared the species vulnerable, orchardists who want to be able to protect their crops by shooting the occasional flying fox, and animal welfare groups who raise young bats orphaned by shooting.

Although the day promised to be a fiery one, many passionate and well delivered talks allowed all parties to appreciate the other's positions.

Many useful steps were then taken towards effective management of the

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flying foxes.

The issue is relevant to Campbelltown because we know of two local camps where flying foxes hang out during the day.

During the night they spread out and visit most backyards in the district that have flowering or fruit-bearing trees.

Unfortunately, the bats also visit local orchardists Ed Biel and John Bicknell who spoke persuasively at the symposium about their problems.

The bat attacks on their ripening fruit are severe when local eucalypts fail to flower.

How we can help:

□ Local councils can plant forest red gums which flower annually and prolifically during the fruit-ripening period. This species grows naturally in the

district, but grows a little too big for back gardens.

□ Urban people can help by planting an array of banksias, paperbarks and bottle-brushes that flower during spring and early summer.

Besides helping the orchardists, you will be seeing the large and intelligent bats visiting your gardens by night, and wattle-birds and rainbow lorikeets by day.

□ We can buy fruit from small fruit shops. Large shopping chains have such a strangle-hold on prices that orchardists do not have sufficient margins to afford protective netting.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996; hear a koala bellow on 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, from Quondong Visitor Information Centre or by sending \$25 to us at UWS.

□ Steven Ward and Robert Close

Natural selection's at work

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AS Robert settled into the dentist's chair last week for a check-up, his dentist, Richard Warren, was surprised to be handed a small box. In it was a young koala's skull and one of the molar teeth was broken in half and one of the halves was rattling in a hole in the upper jaw.

Robert had guessed that the injury was caused by an airgun pellet which broke the tooth and impacted it into the jaw.

Because we are collecting data on why koalas die we really needed a professional opinion on the cause of the damage. Richard x-rayed the koala's jaw and decided that the koala had not been shot.

He considered that the damage was due to a natural weakness in the tooth which presumably split under the natural pressures of growth and use.

This damage must have caused great discomfort to the koala as all the molar teeth on the damaged side of the jaw were thick with black tartar whereas

those on the undamaged side were shiny with wear.

Obviously the koala had been using only the latter side. This unequal use had actually caused the lower jaw to twist out of alignment with the top jaw.

The koala would then have found it difficult to crush the gum leaves properly to extract the required fats, sugars and proteins.

This would explain why he was a skinny wreck when finally hit by a car on Heathcote Road.

As Richard remarked, it's a good example of Charles Darwin's natural selection in operation.

That is, the koala's genes for teeth growth were not up to standard, so he eventually died without leaving any offspring to carry the deficient genes on to the next generation of koalas.

How many of us have teeth that would serve us well through life without the help of a dentist?

This koala's skull reminds us how important our teeth and our dentists are for our well-being.

As for Richard, his comment was that the koala job was his most unusual request since a patient popped out her glass eye and asked for a polish!

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By Steven Ward and Robert Close.

Natural spotter

SOME people have a natural ability to spot koalas and Lou of Wedderburn is one such person.

He spied a koala high in a grey-gum as he travelled by car at the southern end of Wedderburn Road.

Rob was called and was soon 10 metres up the tree and ready for the catch.

Responding to the waving flag, the koala moved down the branch, but then made a huge leap over Rob's shoulder to another larger branch.

This happened so quickly that Rob was unable to park his flag in time to grab the koala as it shot past him and out of reach of the extendable six metre pole and flag.

Lou's son Nathan was sad that we didn't catch the koala as he was looking forward to having it named after him.

However, we were quite sure that we would see this koala again because it was in a corridor of koala's favourite trees, the grey-gums.

This narrow corridor runs all the way beside the busy Wedderburn Road past many houses to the Georges River.

So we figured someone would see him in his travels.

Sure enough, three nights later we were called by Glenda and Robert George, who had spotted a koala walking down Wedderburn Road on the northern side of the river.

Risking injury from an idiot driver who overtook them in the face of oncoming traffic, they hustled the koala

mac's koala club

Surprisingly, the koala stayed in the tiny tree and this allowed an easy capture.

But are the two untagged koalas one and the same?

Unfortunately, we'll never know unless another koala turns up nearer the southern end of Wedderburn Road.

However, we've decided to call the captured one Nathan anyway!

Nathan now has ear tags fitted to ensure that we can recognise him again.

He also has a radio-collar because he was captured only 300 metres from the proposed St Helens Park housing development.

We will track Nathan to see if he uses the area that will be cleared to build 136 houses if the proposal goes ahead.

We'll report on Nathan's movements next week.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at

Nathan to face judge

KOALAS have one large pair of front incisors on the bottom jaw and one large and two small pairs on the top jaw.

The large incisors can inflict serious damage when male koalas fight, and we often find that these teeth are damaged.

Nathan, the koala we captured last week at Wedderburn Gorge, looked like an old boxer with the top left and bottom right incisors missing.

He was large (10kg), strong and feisty and when we released him he galloped up a tree and immediately started eating despite the fierce wind that was tossing him and the tree wildly to and fro.

We had fitted Nathan with a radio-collar so that we could

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follow his movements and he's set a cracking pace.

For the first few days he moved up to the head of Spring Creek.

Houses near Woodlands Road that back onto the bush may have heard him bellowing.

Next he moved 1km down Spring Creek and beside the Georges River where he's been for the past few days.

Karen Smith (reporter for the Advertiser), her son Andrew, and friend Cindy, an exchange student at UWS from Florida, joined us on Saturday to track Nathan down.

We had to force our way through thick undergrowth, and

clamber down steep, rocky slopes before we eventually found him dozing 30m high in a giant Blackbutt.

Despite the hardships, the bush was beautiful and our visitors agreed that the venture was worth the effort.

Hopefully, Nathan will be closer to the top of the valley on Tuesday where the judge from the Land and Environment Court will visit the proposed Landcom site at St Helens Park.

We can't imagine the judge sliding on his bottom down the slippery slopes as we did, so if Nathan is going to impress the judge, he'll have to be on the ridge-top.

The judge must decide whether the effects of the development of the site will be sufficiently detrimental for the local bushland and its inhabitants that the development should be scrapped or reduced.

It would certainly be impressive if Nathan were to be on the site at the same time as the judge.

We'll report on the progress of the court case next week.

If you spot a koala, call us anytime on the pager 9962 9996. To hear a koala bellowing, call 4620 3200.

To buy the koala video, send \$25 to us at UWS, or contact The Advertiser office or Quondong Visitor Information Centre.

Steven Ward and Robert Close.

Protection for our two rivers

LAST week we radio-tracked Nathan to the Georges River about 200 metres upstream of the Wedderburn Gorge.

On Wednesday he had crossed the river and was high up on the ridge above Spring Creek on the southern side.

This placed him on the edge of the proposed Landcom site at St Helens Park.

In fact, he was close to the site where one of the constructions would be built to treat stormwater that will flow from the site before it runs down into Spring Creek and then into the Georges River.

Many people do not realise that when water runs into a roadside gutter in the Campbelltown area, it will eventually run into a creek.

All creeks east of the southern freeway run into the Georges River, while those to the west run into the Nepean.

So any rubbish, tennis balls, pet faeces, sand and soil, oil, detergent, food scraps, fertiliser, herbicides,

Mac's koala club

pesticides, lawn clippings and garden waste that finish up in the gutter will wind up in either of Sydney's two major rivers.

Once in the river, these materials discolour the river and provide nutrients which then allow bacteria and algae to flourish.

At present, gross pollutant traps and detention basins are used to stop stormwater runoff into Spring Creek and Mansfield Creek.

The amount of rubbish, weeds and silt that are downstream of these constructions show that they are currently not coping with St Helens Park stormwater.

No matter how good the storm-water

system, it will not work unless it is properly maintained.

Active maintenance must continue forever if the creeks and Georges River are to be protected.

This means that silt and rubbish must be regularly removed from the systems.

This maintenance, however, would be dramatically decreased if people were aware that they are part of the problem.

Nothing but rainwater should flow into gutters.

If you spot a koala, call us anytime on the pager 9962 9996.

To hear a koala bellowing, call 4620 3200.

To buy the koala video, send \$25 to us at the university or contact The Macarthur Advertiser office or Quondong Visitor Information Centre.

Steven Ward and Robert Close.

Here comes a crazy time

SEPTEMBER is the start of crazy time for koalas across the country.

It's the time when young male koalas leave their homes and head off into the unknown.

It's also the time when older males, those that have just reached full size, pick fights with the top boy in the area.

If the older male loses, he may find himself turfed out of the home that he's lived in for the past few years and forced to roam.

The result is that there are a lot of koalas moving into areas that they are not familiar with.

They may find their themselves on roads or in backyards where they are caught and therefore taken to cars and traps.

Consequently, our pager rings hot during September and October.

A recent call has come in to report an untagged koala walking along O'Hares Road in Wedderburn.

This animal is likely to be the same koala we saw three weeks ago at the corner of Wedderburn Road and



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Aberfoyle Road

We thought time while that the latter animal was Nathan who we caught at Wedderburn Gorge two weeks ago and fitted with a radio-collar.

Nathan, however, has shown that he is very much at home in the Wedderburn Gorge-Spring Creek area and is moving rapidly around that area, no doubt visiting his ladies and keeping younger males on their guard.

Another caller, Sue Roll, reported a koala near the fire-trail

which continues from Barber Road to Kintyre.

Sue is a regular walker of the fire-trail and was delighted to see a koala last.

This fire-trail appears to be the border between the home-ranges of our well-known Shirley and Anne, a female we met after she'd had an unpleasant encounter with a dog.

So walkers in this area may often walk unknowingly beneath a koala!

A third caller rang last month for their field to see that he'd seen two koalas on the road at the corner of Aberfoyle Road.

These calls must have resulted in our first two koalas getting us a lot of calls. For further koala sightings or for a koala, call us anytime on the pager 9962 9996.

To hear a koala bellowing, call 4620 3200, and to buy the koala video, send \$25 to us at the University or contact the Macarthur Advertiser office or Queensland Visitor Centre.

By Steven Ward and Robert Close

Hey kids! Give me a Breyk . . .

‘BOYS throwing stones at koala at St Helens Park’ was a message on our pager last week.

But a subsequent call from local resident Michelle Thompson reassured us that the koala was fine and that the foolish boys had been given a roasting from Campbelltown police officers.

Michelle also reported that the koala was in the area that would be cleared if the proposed Landcom housing development goes ahead.

This is the first time that a koala has been reported on the actual development site, despite the fact that our tagged koalas, Nathan and Martine, live in the valley of Spring Creek, immediately to the north.

When we arrived at the site, beside the baseball ground off Kellerman Drive, we found the koala being admired by local residents who were shining their torches into his smallish redgum.

Redgums are famous for being good food trees for koalas and are a feature of the endangered community Cumberland Plain Woodland.

Thinking that the koala was probably Martine or Nathan, we searched for eartags but in vain.

Robert then shinnied up the tree, but as he was strapping himself in to a suitable spot from which to flag the koala down to the ground, the koala started to descend.

As the young koala climbed past him Robert was able to grab and bag it, then lower it to the ground.



NEW ARRIVAL . . . Breyk sits in his redgum tree at St Helens Park. Photo: JEFF DE PASQUALE

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the koala at close range.

He was about two years old and in perfect condition; we suspect it might be Martine's young from last year.

By popular vote, the young fellow was named Breyk after Michelle's son who had alerted his parents to the koala's presence.

After fitting eartags we released the youngster back into his redgum where he stayed all the next day.

Our guess is that he will stay on the Landcom site where Nathan is unlikely to harass him.

The site is richly supplied with redgums and living should be easy until he grows big enough to challenge Nathan.

We would be delighted to hear from any residents who spot him.

Call the University of Western Sydney hotline on 9962 9996; to hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from the Advertiser office, or from Quondong Tourist Centre or by sending \$25 to us at the University.

Steven Ward and

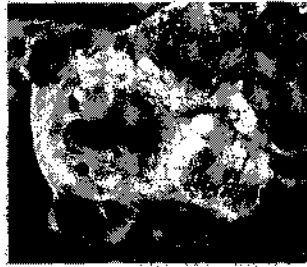
Roaming dogs a danger to koalas

DURING the 10 years that we have studied koalas in Campbelltown, we have found only three animals killed by dogs.

The first, a young adult, had entered a backyard in Coto Vale occupied by a rottweiler which seized it from behind and crushed its chest cavity.

The second, half-grown, was found near Georges River Road with large teeth marks in its skull.

The third, unlike the



first two, was killed at Wedderburn by a predator with small, sharp teeth.

We expect that the baby koala was pulled from its mother's back by a cat, a small dog or a fox.

the koalas that we know to live south of Sydney is less than we would have expected given the large number of dogs that are allowed to run free at night.

Of course there have probably been other koalas killed by local dogs but not reported to us, or whose deaths have passed unnoticed.

Nevertheless we have been surprised that koalas such as Shirley and Lynn have been able to survive for many years in areas where dogs are common.

A report in a Brisbane newspaper on August 18 provides a clue to their survival and indicates that koalas can be more than a match for a smallish dog.

The story tells how Corky, a dachshund, came off second best to a koala.

According to the reporter, the dog was punctured in the stomach, spleen and the throat.

Although no one actually saw the attack, koalas were common in

the area and one had been bellowing nearby that evening.

We may have demanded more evidence before we condemned koalas, but the vet who operated on Corky, in vain, was in no doubt that a koala had used its claws to inflict the damage.

We can suggest, however, that if Corky's owners had kept him confined at night, they still would have had him and also the \$500 that the vet charged them for the failed surgery.

If you see a koala (whether or not it is attacked by dogs), call us at the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Tourist Information Centre or by sending \$25 to us at the university.

■ By Steven Ward and Robert Close.

mac's koala club

In addition, we suspect that Shirley's cub from last year was taken at Kentlyn by a predator.

We also suspect that Shirley's neighbour, Anne, lost a large cub to a dog.

Five deaths out of all

Youngster outwits uni team

LAST week's Macarthur Advertiser contained a photograph of a young koala in Kentlyn Primary School.

It remained on school grounds over the weekend and was still there on Monday evening.

By that time we had returned from a field trip and were keen to try out our new trap.

This trap consisted of a collapsible fence which encircles the koala's tree, and has a gap in the fence leading into a wire box trap.

The fence is constructed of tubes which slide vertically down into a horizontal frame.

Ours is the first trap that can overcome sloping ground, large rocks and small gullies.

We would like to use the trap extensively because it is less stressful and safer for both the koala and the catchers.

The school presented a new challenge, however, because the koala's tree was surrounded by benches for the children.

So we had to construct our fence over several of these seats.

As we worked, the koala lay back in his tree-fork, utterly unperturbed.

The problem with traps, however, is that the koala may decide to stay in the tree all night.

The librarian and principal of Kentlyn Primary checked the trap at 9 and 10.30pm, but to no avail.

The 12.30 shift was Robert's and when he arrived a male koala was bellowing in the bushland to the west of the school.

Unfortunately the trap and the tree were empty - Robert was outwitted yet again by an animal with a little brain!



mac's koala club

**With Robert Close
and Steven Ward**

Kentlyn Primary is part of the home-range of Lyn, whom we first captured many years ago in the school grounds.

We found her, by radio-tracking, across the road from the school in the area where Robert had heard the male koala bellowing.

Lyn's cub, Rimas, however, who should have been on her back, was nowhere to be seen.

We suspect that he was our escapee from the trap!

Because Rimas is so young (about 10 months) he would have been able to fit between the vertical bars of the trap and so escape.

We would like to find him again because we have not yet fitted him with eartags, so please report all koala sightings to the University of Western Sydney hotline on 9962 9996.

Copies of our koala video (which features Lyn and the school) can be obtained from The Macarthur Advertiser office, or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

The Macarthur Advertiser, Wednesday, October 3, 2001

Shirley gave vent to her feelings over capture . . .

OCTOBER in Campbelltown is the time when young koalas leave their mums.

So it's also the time when we catch the youngsters and give them their eartags.

Once their eartags are fitted, we can follow the youngsters' progress around the district as people in the community spot them and report their

movements to us via the hotline number.

This week it was time to catch Shirley's latest joey.

We always hesitate with Shirley because she's so experienced that she takes no notice of the flag that we wave above her head to drive her down the tree.

We usually resort to using a loop of cord that we slip over her head then apply pressure to

bring her down.

That method, however, didn't work as Shirley wrapped the cord around a limb, forcing Robert to climb up a slim adjacent tree to free her.

He used a pair of climbing tapes which loop around the trunk.

One loop attaches to his climbing harness and the other to his foot.

Robert then climbed

until he was slightly above and one metre away from Shirley and her cub.

Although Shirley was reaching out to scratch him, Robert was able to reach across and grab the cub, put it in a bag then lower bag and cub safely to the ground.

Meanwhile, Shirley had jumped across to Robert's tree and stopped immediately below him.

At this stage Shirley urinated copiously down the trunk of the tree, a smooth-barked angophora.

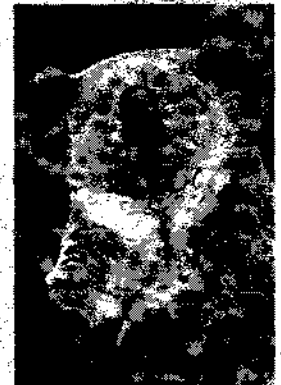
The liquid made a vivid, dark mark on the pink bark prompting two watching volunteers to ask who was responsible!

Deeply offended, Robert then climbed down the tree driving Shirley in front till she was close enough for the catchers to bag her.

Her eyes were bright and her musculature good, though her coat was a little brown, a colour we associate with poorer condition.

Feeding her cub, however, was probably a considerable drain on Shirley's resources.

The cub, a 2.5kg female named June by Alison Fares, one of the volunteer catchers, was irresistibly cute and soon had her eartags fitted.



**mac's
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club**

**With Steven Ward
and Robert Close**

We also changed Shirley's radio collar and soon the pair were released back in their tree.

We look forward to hearing of June's adventures!

Call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office, or from Quondong Tourist Centre or by sending \$25 to us at the university.

Bushwalkers find baby on track

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With Steven Ward and Robert Close

In recent weeks we've received reports of several koalas some distance south of Campbelltown.

Normally such calls are relatively rare.

The first were two independent sightings of koalas on the road to Wombeyan Caves.

Another report was of an almost mature male sitting in the middle of the road at Macquarie Pass.

He was surprisingly docile, but on inspection by a vet, was classified as being in good nick and released back near the pass.

The best story was from bushwalkers

exploring the marvellous Box Hill Track at Mittagong.

This track follows the route of an old railway that was built to a coal mine in beautiful forest land.

The bushwalkers, noticing something grey on the ground, found it to be a tiny koala, smaller even than Shirley's joey that we ear-tagged last week.

Their first thought was that its mother must be somewhere nearby

and that they should not interfere.

When they walked off however, the cub ran after them.

As it would take a heart of stone to resist such a plea, the hikers gathered up the cub and delivered it into the safe hands of Gaylene Parker.

Gaylene is a skilled WIRE'S worker who has nursed Campbelltown koalas over the years with great success.

Gaylene found the cub ravenous for both milk

and leaves and it was soon putting on weight.

Gaylene's problem is now to decide when to release the cub.

If its mother is still alive, it would be best to return the cub to the bush as soon as possible and while it still remembers its home territory.

On the other hand, if it is released before it's ready, it might not survive.

Research, however, has shown that young koalas are quite capable of surviving on their own. Our own experience with Molly shows that a young koala can return successfully to the wild

after a long period in captivity.

Molly, who features in our video, broke a thigh bone and was in Gaylene's care for eight weeks.

That was years ago now and Molly is still breeding well at Wedderburn!

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

Copies of our koala video can be obtained from The Macarthur Advertiser or from Quondong Tourist Centre or by sending \$25 to us at the university.

Looked like it was in bag

THANKS to local callers, we now have over 1000 sightings of koalas in our data base.

Computer technology allows us to overlay these sightings onto maps to identify whether our koalas are living on areas such as private or public land, or clay or sandstone soils.

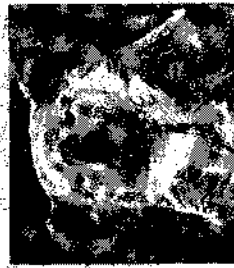
In fact, we can relate koala activity to whatever maps we can obtain.

This information will be very valuable for planning local development.

One problem, however, is that we have to rely on the accuracy of the reports.

So Steven has given each report a reliability rating.

Reports of koalas



mac's koala club

**With Steven Ward
and Robert Close**

beside the road are particularly tricky because most reporters are unable to stop to make a positive identification.

Although some drivers have amazing abilities, like Lou Melham from Wedderburn who has spotted two koalas recently beside Wedderburn Road, not all reports are so accurate.

Two recent sightings were interesting. The first was of a koala in a tree beside the M5 freeway.

Two motorists independently called in to report this sighting. On checking the report, our researchers Lynn and Georgia spotted the koala hanging from a branch by one hand and trying to grasp the same branch with its other hand.

Quite excited, they inspected more closely and found to their

surprise that the koala was, in fact, a plastic bag caught by one handle-loop.

The square silhouette with the other handle-loop arm waving about, looked exactly like a dangling koala!

The second report also came from two independent motorists driving along Appin Road, a kilometre south of the Hume monument.

When Robert investigated, he found a dead, tailless fox beside the road.

The bloated remains looked very much like a koala as the redness of the coat was not apparent.

These false alarms are also recorded on our data base as they give us an idea of the proportion of

unverified calls we can expect to be false.

We don't mind, therefore, being called out.

We expect, however, that sooner or later a genuine koala will appear at the same site on Appin Road.

The vegetation and soil maps show that this area appears optimal for koalas and is also a link between the Georges and Nepean rivers.

So keep those calls coming in to our hotline on 9962 9996.

Koala calls can be heard on 4620 3300, and our video can be purchased from The Macarthur Advertiser office, Quontong Visitor Information Centre or by sending \$25 to us at UWS.

Koala link to the soil

LAST weekend Steven presented some of his research findings at a conference on urban ecology held at Taronga Zoo.

His graphic maps showed the relationship between locations of koala sightings and vegetation types.

It was clear that most of the koala sightings occurred on the edge of shale soils.

These soils are more fertile than the sandstone soils that dominate the surviving bushland area around Campbelltown.

Steven's maps also showed that these fertile soils have been cleared mostly for housing and agriculture.

The clearing, therefore, has removed most of the best koala habitat.

Further clearing will clearly affect the survival of Campbelltown's koalas.

Two of our final year environmental science students, Carlos Ferguson and Robert Stephan, also have been mapping Steven's data.

They have found that some areas east of Campbelltown have relatively few koala sightings, despite the presence of apparently suitable habitat.

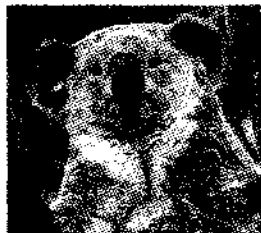
When the koala data are plotted against the density of human settlement, however, these areas show up as having few people.

The lack of sightings, therefore, may be due to the scarcity of sighters.

Carlos and Robert predicted these areas (Minto Heights, and Long Point) eventually will be shown to harbour breeding koalas.

It was no surprise, therefore, to receive a call recently from residents in Moreton Street, Minto Heights.

Sure enough, we found an untagged young male koala high in a forest red gum.



mac's koala club

with Steven Ward
and Robert Close

showed faecal pellets under several trees, indicating that the koala had been in the garden for some time.

This garden was watered from the households Envirocycle waste-water system.

We wonder, therefore, whether the koala had found the leaves of the well-watered backyard trees juicier than those of the dry bushland!

Another fascinating call came from Waminda Avenue in Campbelltown.

The caller was flabbergasted to find a full-size kangaroo bounding across the road opposite Waminda Oval.

We previously have seen grey kangaroos at Aberfoyle Road, Wedderburn, and Hill kangaroos (wallaroos) at Mount Annan Botanic Garden, and dead on the road beside the Garden.

So large kangaroos are in the district.

But we've not heard of them in the middle of the suburbs of Campbelltown.

If anyone can give us further details of the fate of this animal, please call 9962 9996.

To hear a koala bellowing, call 4620 3200. Our koala video is available at the Advertiser office or from Quondong Visitor Information Centre or by sending \$25

Mixed bag in sightings

KOALA sightings this October have not matched the number from last year when sightings were coming thick and fast from Airds.

This month, by contrast, we've heard nothing from Airds.

Other callers, however, have reported koalas this week from the top of Wedderburn Gorge on the St Helens Park side, and from Riverview Road, Kentlyn.

The large kangaroo reported last week on Waminda Avenue has now reached Junction Road Ruse, where it was spotted not far from where a koala was reported last week at the community centre at Ruse.

Probably the same koala was spotted later at Cudgegong Road, on the edge of Smith's Creek Reserve.



**By Steven Ward
and Robert Close**

No doubt we'll hear from this koala again because the reserve is completely surrounded by houses.

Local fires are making the bush hazardous for koalas.

The home of Amanda and an untagged male koala burnt last week behind the Monastery beside Peter Meadows Creek.

Although the flames spared the canopies of the largest trees, smoke inhalation would have been a great danger to

the resident koalas.

A sighting of a different kind from Wedderburn forced us to look up the wildlife reference manuals.

A resident had found a tiny possum with a gliding membrane running from wrist to knee.

The animal's body was only the size of a house-mouse (8cm) although its tail was longer.

However, the only tiny possums we have in the district are the pygmy possum (which lacks a gliding membrane) and possibly the feather-tailed glider (also called a pygmy glider) whose tail has a fringe of long stiff hairs on either side.

Because the Wedderburn animal was not reproductively mature and its tail lacked this fringe, we consider it was a baby

sugar glider, which had probably just left its mother's pouch.

Young sugar gliders leave the pouch when only 70 days old and stay in a nest for another 50 days before venturing out with their mother.

Had it survived it would have eventually grown to a body size of about 20cm.

We appreciate all these calls and encourage residents to report koala sightings on the University of Western Sydney hotline 9962 9996.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

Bruce from Ruse amuses residents

Koala spotted at homes

IT was obvious that last week was election week because a koala was door-knocking down Bellinger Street, Ruse!

Our first call came in at 8am to say that the koala was at 114 Bellinger Street.

Soon after that we heard that he was up a tree in the front lawn at number 109.

Not long after, residents reported that the koala was being tormented by a magpie and had climbed down the tree and vanished into the suburban street.

Despite searches by residents, the koala remained hidden until 6pm when Bruce, from number 96, called to say that the koala was lounging in a small conifer in the backyard by the swimming pool.

Robert arrived to find the koala climbing down the tree and, in one of



with Steven Ward and Robert Close

the quickest catches of his career, easily bagged the animal.

The koala was a healthy young male weighing 7.5kg (75 per cent maximum weight) and about 2-3 years old.

To honour the final caller of the day we named the koala, Bruce.

We also liked the title Bruce from Ruse!

Bruce, we believe, is the same koala that we

reported last week from Cudgegong Street, the next street west from Bellinger.

But what were we to do with him?

Bellinger Street is close to the enclosed bushland of Smith's Creek Reserve.

If we released him there it was likely that he would eventually emerge into housing areas.

However, if we released him in the Georges River Reserve he would have to contend with mature, established males.

We decided to stick to our general rule of releasing koalas as close as possible to the capture point.

So after fitting Bruce with his distinctive ear-tags, we released him beside a fine grey gum close to the creek-line in Smith's Creek.

Five days later, on election day, Bruce was

reported crossing Junction Road at 6am, more than a kilometre further north.

The caller watched with fascination as Bruce waited by the gutter until all cars had passed then looked both ways and, when the road was clear, ran across the road and up a tree.

Later in the day Bruce vanished again.

No doubt we'll hear more from Bruce from Ruse!

If you see him, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Tourist Information Centre or by sending \$25 to us at the university.

Koala at causeway

NATHAN is a big, confident koala who patrols Spring Creek near the Wedderburn causeway.

Lou Melham recently extended his koala-spotting record to four, as he drove up the gorge road on the Campbelltown side of the causeway, by noticing Nathan in a largish tree close to the road.

When Lynn Coxall joined Lou, they were amazed to find a second koala higher up the same tree!

Lynn thought at first the second koala was local female Martine.

The animal, however, was sporting the sign of a male – a dark, greasy mark in



the centre of its white-furred chest.

This mark was the sternal gland which produces a rich brew of aromatic chemicals, vital for koala social activity.

Nathan was in the main fork and clearly had the wood on his rival who was much higher up, on a lateral branch.

Studies indicate that the male which climbs an occupied tree is generally the dominant animal of the two.

The less confident male avoids conflict by retreating to the end of a branch or by rushing past the dominant male

and seeking safety in another tree.

Sometimes fights break out and the males can inflict considerable damage, such as snapping an arm-bone in two.

Let's hope that Nathan and his rival can solve their differences without such damage.

Other interesting reports came from Minto Heights, an area that we have predicted should be prime habitat.

The first call was from the Taylors who had found a young female in Florence Avenue and then assisted with the catch, thereby earning the right to name her Taylor.

Taylor's pouch was empty, but ripe, which indicates that she will soon be facing the rough courtship of males like Nathan.

Next day the Taylors

discovered another female nearby, with a large cub on her back.

They watched entranced as the cub attempted in vain to re-enter the pouch.

Its mother, however, would have none of it and cuffed the babe when it persisted.

Unfortunately, we could not arrange a catching team so the pair remains untagged.

We would be grateful if Florence Avenue residents – or anyone else! – could watch out for the koalas and ring us anytime on the pager 9962 9996.

To hear a koala bellowing, call 4620 3200.

To buy the koala video send \$25 to us at the university or contact The Macarthur Advertiser office or Quondong Visitor Information Centre.

□ STEVEN WARD
and ROBERT CLOSE

Quiet on koala front

KOALAS have been relatively quiet this week, with reports from Minto Heights and St Helens Park.

Both sightings occurred in places where koalas were unknown a few years ago.

The St Helens Park sighting was in the next creek south from the proposed Landcom development which, if approved, will add 140 houses on the ridge between that creek and Spring Creek to the north.

We still await the judge's decision from the Land and Environment Court.

A call of a different and unusual kind came from Wedderburn where a resident reported that a bandicoot had drowned in a swimming pool.

The animal was a young male long-nosed bandicoot.

Australia has several



with Rob Close
and Steven Ward

species of bandicoots including the now famous Rabbit-eared bandicoot, better known as the bilby.

The long-nosed species, however, is grey with a white belly and feet and, of course, a very long nose.

The species has front claws adapted for digging conical-shaped holes into which it pokes its long nose in pursuit of beetle larvae and other organisms in the soil.

In Tasmania, bandicoots are welcomed by farmers

because they have a controlling effect on the scarab beetle larvae which damage crops.

Around cities, unfortunately, their efforts to control insect pests are often not recognised by gardeners who only see the conical holes dug in manicured lawns.

Bandicoots, therefore, have been persecuted around Sydney and now very few remain.

Other reasons for their disappearance have been cats and dogs, clearing of bush, fastidious clearing of backyards and the use of the whipper-snipper.

Robert used to capture bandicoots 30 years ago in "untidy" backyards in Epping and Eastwood where the "coots" could always find refuge in long grass, piles of timber and thick bushes.

Now they are gone.

The Wedderburn "coot" was the first one

Robert had seen in the district, though he has sometimes seen their conical holes.

Old records show they were once common at Wedderburn, so it is great that they are still surviving.

We hope residents won't persecute them.

Moreover, a thick piece of rope hanging in the corner of the swimming pool will allow mammals to escape if they should tumble in.

If you see a koala or other unusual mammals, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Our koala video can be obtained from The Macarthur Advertiser office or from Quondong Tourist Information Centre or by sending \$25 to us at the university.

A hair-raiser at the clifftop

AN English lad named David recently arrived in Australia.

He was roped to a tree on the edge of a sheer cliff, with O'Hares Creek at Wedderburn, 150m below.

No, this was not some bizarre torture, but an attempt to capture a koala sheltering in a peppermint gum that angled far-out above the chasm.

David was in charge of one of the flagging poles, and the ropes were to stop him sliding over the edge in the heat of the capture.

With the capture team in position and securely tethered, the attempt began.

Unfortunately, the koala ventured out on a slim branch just out of reach of the flag.

To get closer, Robert was soon halfway up the tree, enjoying the panoramic view but hoping that the tree's roots had a good grip on the clifftop.

This time the koala responded to the flag, but moved on to a dead limb which creaked and groaned under the strain.

We all held our collective breaths as the koala gingerly inched back to safety.

Robert, vastly relieved, was then able to flag the koala past him where it leapt, from a height of about 3m, virtually into Lynn's arms.

The koala was not tagged, but sported a tiny



hole in one ear.

This identified it as Gaylene, whom we had last seen three years ago in its mother's pouch.

The mother was Molly, a star in our koala video.

Her story was that we feared that she would never raise a youngster because her pouch was divided by a curious membrane.

To our surprise, however, she produced a cub, Gaylene, and the membrane miraculously disappeared.

The video shows Gaylene, furred but tiny, still in Molly's pouch.

We then released Molly and cub, but Molly promptly lost her radio-collar and we, in turn, lost contact with her cub - until last week.

When we looked in Gaylene's pouch we found it empty, but with the same dividing membrane!

This means that the membrane is an inherited characteristic and one that we have never heard of before in any marsupial - an exciting discovery!

□ STEVEN WARD
and ROBERT CLOSE

The Macarthur Advertiser, Wednesday, December 5, 2001

Victor Koala says G'day

VICTOR, born 1998, son of Sarah (born 1995), grandson of Franchesca (born 1992), formerly of O'Hares Creek ridge, turned up in a Wedderburn garden recently, his first appearance in 12 months.

When last seen he was mooching around in his mother's or grandmother's territories like a bored 15 year old school boy.

His reappearance in the Wedderburn garden, 2km from his old stomping ground, means that he's probably off on his travels to see the world.

Having followed his and his family's

continue his movements in a westerly direction and will pass by houses on the Wedderburn plateau in the vicinity of Exley Road before crossing the Georges River and Appin Road.

We predict that he will reach the Nepean River eventually.

If he turns south, we may hear of him in Douglas Park, but if he veers north, people may see him in Camden.

We're looking forward to the day when a koala first appears in Mount Annan Botanic Garden!

One of our other tagged animals followed a similar path from Ruse where we had originally tagged him.

He was reported to us successively when near Wedderburn Gorge Road, then halfway down Appin Road, then finally in Douglas Park.

Now that we have 66 animals tagged, we are discovering much about our animals' movements, thanks to people who spot the koalas and call us.

Talking of predictions, we made one a few weeks ago that koalas eventually would be spotted at Long Point, Macquarie Fields.

Sure enough, a caller rang in to say that as she rode her bicycle to work she had seen a koala crossing Wills Road at the northern end.

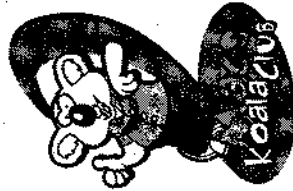
Unfortunately, she couldn't call us until a few days later so we were unable to check the koala for ear tags or discover whether it was a breeding female.

If you see a koala, call the University of Western Sydney hotline immediately on 9962 9996.

To hear a koala bellowing, call 4620 3200.

Our koala video can be obtained from The Macarthur Advertiser office or from Quondong Tourist Information Centre or by sending \$25 to us at the university.

□ **STEVEN WARD**
and **ROBERT CLOSE**



Kindness to a hurt koala

THE sort of bush that young lads like for forts and tunnels has trees with low branches and thick underbrush.

Such a spot can be found beside Georges River Road, Kentlyn, only 4kms from Campbelltown railway station.

It was here that 11 year-old Scott Grimmett and Dylan Thompson were playing last Sunday when they noticed a grey shape in the grass.

Closer inspection revealed an ear-tagged koala with a large, deep wound, the size of a fried egg, on its rump.

Being regular readers of Mac's Koala Club they knew what to do and raced home to ring the koala hotline.

Lynn was soon on the spot and recognised the koala was Bruce from Ruse.

Readers will remember that Bruce was last reported looking both ways before



crossing Junction Road not far from Leumeah High School.

So he had come a full circle having travelled at least 5kms over the past three weeks.

Unfortunately, one of his adventures was an encounter with a dog.

Bruce's gaping wound indicated that the dog had grabbed him as he tried to escape up a tree.

Despite the severity of the wound, however, Bruce must have pulled free and fortunately appeared to have no other damage.

As it was Sunday afternoon, no vets were open, so Lynn, a licensed

WIRES operator, had to get advice over the phone on treating such a large, deep wound.

Next morning Peter Brown from Campbelltown Veterinary Clinic inspected and cleaned the nasty hole, removed dead skin and left us with instructions on how to dress the wound and apply antibiotics.

For the first three days we were kept busy washing out the wound, removing maggots from the holes and finding suitable food for Bruce.

His particular delight is *Eucalyptus nicholli*, not a local gum tree, but one that has been a popular plant around Campbelltown.

Bruce was initially a model patient, accepting his twice daily wound dressings with calm patience, and tucking in to his food on return to his quarters.

In recent days, however, as his condition

improves, he's become increasingly difficult to handle.

This is a good sign and we hope to release Bruce in a week or 10 days.

Bruce has suffered greatly and had we not found him, he would have slowly died from the infection or from starvation.

We hope that dog owners who read this column will consider Bruce's plight and not let their pets roam, particularly at night.

To report a koala sighting, call the University of Western Sydney hotline on 9962 9996.

To hear a koala bellowing call 4620 3200.

Copies of our koala video can be obtained from The Macarthur Advertiser office or from Quondong Visitor Information Centre or by sending \$25 to us at the university.

□ STEVEN WARD
and ROBERT CLOSE

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, December 26, 2001

Campbelltown Macarthur Advertiser, Wednesday, January 1, 2002

Note:

No column published on this date

Sad ending to adorable koalas

OUR work with koalas over the years has had its ups and downs.

Just before Christmas was one for deep downs and some small ups.

Firstly, we heard that the small female koala from Mittagong mentioned in this column several weeks ago had died.

The koala had severe congestion of the lungs and a faulty kidney.

We presume that the mother had abandoned its baby because it was a sickly child as Gaylene, her WIRES carer, called it.

Then a lad from Appin called to say that his two dogs had killed a young female koala that entered the dogs' yard.

The lad was distraught over the



event and we are grateful to him for calling us.

Other people might have quietly buried the koala and kept it quiet.

Now, however, we know for the first time that koalas are breeding in the Appin region.

The next blow was to find Bruce from Ruse dead in his enclosure.

Bruce was being treated for a severe dog wound.

The wound, however, was healing, Bruce was

eating, and we had great hopes that he would recover.

Alas, it was not to be.

Bruce suddenly seemed to lose his zest and he died, leaving us all heart-broken.

A post-mortem examination showed an enlarged adrenal gland that indicated that he died from the stress of twice daily wound-washing and confinement in a dark fly-free enclosure.

Fortunately, there were three happier happenings, all on Georges River Road.

Firstly, we were

called out to identify the cartags of a young female that entered a dog enclosure and survived unscathed.

This was June, the one-year-old daughter of Shirley.

June had left her mum and moved 300m north along the road.

Next we were told of a koala at the Frere's Road corner.

This was Marie, last seen in October 1996 on the Army side of the Georges River.

She must be at least seven years old.

Finally, we were called a bit further

down the road to where the Cahills had a koala in their garden.

He turned out to be Kent, last year's son of Lyn from Kentlyn Primary School.

He was looking very fit and hungry for adventure.

Drivers on Georges River Road look out.

Report sightings on the university 9962 9996 hotline.

Purchase our koala video from Quondong Visitor Information Centre or by sending \$25 to us at UWS.

□ **Steven Ward and Robert Close**

Brave koalas escape the flames from hell

THE koala hotline scarcely has stopped ringing since the fires began.

Most callers have been reporters from newspapers, TV and radio – all anxious to hear the latest on the status of Campbelltown's koalas.

Several reporters, to be honest, were only seeking heart-wrenching stories of singed koalas.

We, however, had no stories of physical distress to report.

What we had were many sightings reported by community members of koalas that escaped the flames.

These reports have helped us to understand how Campbelltown koalas cope with fire.

Readers of last week's Advertiser will recall that our tagged koalas Victor and Francheska had survived the Wedderburn fires, as had two untagged



males.

One of these males miraculously had survived an amazing inferno at Wedderburn airport.

The only unburnt trees for hundreds of metres were a few beside the hangars.

Somehow the koala made its way to one of these trees.

Since last week we have continued to check our radio-collared Franceska, whose cub Marlie had vanished since the fires.

To our great delight, Marlie reappeared with her mother 10 days after

the fires.

Nearby, we also found an untagged, young male.

All three koalas had discovered a small patch of trees spared by the flames.

Soon after Marlie's rediscovery, reports started to come in of koalas spotted close to burnt areas on the edge of Campbelltown.

The first was from the police who reported a koala up a light pole near the corner of Georges River and Junction roads.

The next was of a koala in Rawdon Place, Airs, followed by a sighting of a mother (named Helen after her discoverer) and a large male cub (named Rhowyn) near the tip at St Helens Park.

We captured, checked and tagged the couple, then released them back in the area.

The next day we had a koala reported in

Scattergood Reserve on the western side of the tip.

This animal apparently had been bellowing in the area for three days!

Finally, a call came in of a young male from Yerrinbool, south of Bargo.

So now we have a total of 11 koalas that escaped the fires of Campbelltown.

In addition, our other radio-collared animals, Lyn, Shirley and Nathan, were not in burned areas.

We have another 60 tagged koalas unaccounted for and so will rely on community members to keep us informed of any sightings.

Remember our hotline: 9962 9996.

□ STEVEN WARD and ROBERT CLOSE

59 ear-tag koalas are 'missing'

WHEN we first find a koala, we give it coloured ear tags for individual identification.

Once we release it, it may move out of the region or meet with some misadventure and so we may never see it again.

Last week we reported that 60 of our ear-tagged koalas were unaccounted for after the fires.

It is unlikely, therefore, that we will ever find all of these again, even if they did survive the fires.

Nevertheless, we are always being surprised by tagged koalas turning up in strange situations and this gives us a great thrill and provides unexpected information on koala biology.

Michele Thompson and family recently provided such a surprise when they reported two adult koalas and cub on the edge of the Landcom development site at St Helens Park.

Our catching team arrived and identified one koala as Nathan, a large, radio-collared male that controls Spring Creek, a beautiful creek that drains into the Georges River at Wedderburn Gorge.

The mother and cub appeared not to be tagged.

They also proved too difficult to capture.

Next day we used the radio collar to track down Nathan and there, sure enough, was the female in the same tree.

Obviously, some hanky panky was going on!

The cub, alas, had disappeared.

We disturbed the two gum-struck lovers by capturing the female



surprise, that she had a single ear tag, faded by the sun.

This tag identified her as Elle, originally captured as a one-year old in a backyard at Ruse in 1993!

This means that she is now pushing 10 years of age, a grand age for a koala.

After her initial capture (not by us), she visited El Caballo Blanco (hence her name) and was then transferred to a WIRES carer at Kangaroo Valley.

We were then alerted and advised releasing Elle at Wedderburn in an area (now burnt) where an adult had died recently.

So we gave her an ear tag, released her there and never saw her again until last week!

Has she always lived, unrecognised, at St Helens Park or did she wander down from the fire area at Wedderburn?

In an effort to find out, we have now fitted her with a radio collar and will determine whether she has an established home range at St Helens Park.

In the meantime, we have 59 other untagged koalas to find, so keep looking and call the UWS hotline 9962 9996 if you find one!

□ STEVEN WARD

Survival rate is 'good'

THE survival rate of koalas in the Campbelltown region has been good and the public have continued to report sightings of koalas so that we can tick off the survivors from our list of ear-tagged animals.

Another tagged animal (probably Molly) has appeared in the heavily burnt region at Wedderburn and not far away an untagged mother and cub were spotted overlooking O'Hares Gorge.

Then Kevin, a big male, was seen near Coral Avenue, Kentlyn, and an untagged male has been reported frequently from Scattergood Reserve at St Helens Park.

This koala has



chosen enormous trees for shelter and entertains residents with his bellowing.

Perhaps he knows that koala Helen and cub Rhowyn (captured and tagged two weeks ago) are nearby!

If residents wish to hear what a koala bellow is like call our bellow number on 4620 3200.

Further from Campbelltown, a young male koala struggled on to

the F6 freeway having escaped the fires in Heathcote National Park.

He was rescued by people from Symbio Wildlife Gardens at Stanwell Tops, who alerted the National Parks and Wildlife Service.

Steven was then called and he supervised the inspection, weighing, measuring and ear-tagging of the young fellow, now named Symbio after his saviours.

Symbio was then released in an unburnt region of Heathcote National Park.

No doubt we'll hear more from him over the years.

Meanwhile, a month

after the Wedderburn fire, the bush has shown signs of regrowth, with all burnt trees now sprouting clusters of red-green shoots.

These shoots, officially called epicormic growth, arise from beneath the bark of the trunks and limbs rather than from the ends of branches, as is normally the case, and provide a quick supply of energy for the tree.

The sprouts are also fresh food for the koalas whose normal leaf supply has been burnt or seriously scorched.

So our worries about food for surviving koalas are now banished.

The fires have provided numerous

lessons for us all.

These lessons must be heeded by all those involved in managing, planning for and living near the bushland gorges of the Georges River and its feeder creeks.

These areas are very important for the continued survival of our Campbelltown koalas (and other native species).

They must be protected.

Despite the good survival rate, we still have 57 tagged koalas to find, so if you see one call our University of Western Sydney pager number on 9962 9996.

□ Steven Ward
and Robert Close

On the lookout for koalas in bushfire regions

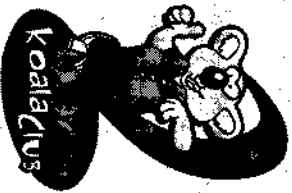
SO what's the score for koalas in the Sydney region since the bushfires?

To answer that question we need to summarise where koalas were found before the fires:

■ **Kur-ting-gai Chase National Park:** 30 koalas apparently survived the 1994 fires, but no studies have been made since then.

No major fires occurred in this region this year.

■ **Yengo National Park**



(**Colo River area, north-west of Kurrajong:**) a widespread, but low, density population of koalas lived in this region.

The recent fires affected a large part of the koalas' distribution.

■ **Blue Mountains:** two young males have appeared in the lower Blue Mountains in recent years.

The recent fires, unfortunately, affected the areas where these animals were seen.

■ **Nattai National Park:** we know little of the koalas in this large and rugged region, but the extensive fires would have affected them.

On the other hand, the terrain is so complex that some animals would surely have survived in different places across the area.

Some surviving animals were spotted near Mittagong.

■ **Avon Dam area:** koalas occur across this area, but have not been studied for some years.

This area was badly burned and the koala numbers are likely to have been badly affected.

■ **Holsworthy Army**

Range and Heathcote and Royal National Parks: These areas held some koalas and were extensively burned.

However, the complex terrain would probably ensure that some koalas survived in scattered areas.

■ **Campbelltown region:** peak koala areas east of the Georges River were not burned and we know that several koalas survived the flames near O'Hares Creek.

So we are confident

that our population will be back to its pre-fire level in a few years.

So overall, we predict that koala numbers, while decreased in some areas, will be only mildly affected in others.

The Campbelltown colony will continue to produce dispersing koalas that will move across the southern areas to supplement affected populations.

We suspect the Georges River gorge burns less readily than other areas

and so provides protection to our koalas.

Nevertheless, weather conditions will eventually stimulate a fire which will burn out the gorge.

At that time we will rely on the other areas to provide survivors.

We are still seeking survivors so if you spot a koala call the University of Western Sydney koala hotline on 9962 9996.

□ **STEVEN WARD**
and **ROBERT CLOSE**

Keeping a close track on koalas

Sightings prove valuable

ALL research on animals must be monitored by an animal ethics committee.

This column is the report which goes to the University of Western Sydney committee to describe our results from 2001:

Four females were radio-tracked and of these, three produced young.

Fortunately, only one was living in a fire zone.

Both she and her almost independent young somehow survived the fires that severely burned most of her home range.

We were unable to find a fourth, radio-collared female after November.

Either her radio-collar had ceased to transmit or she had moved out of the region.

We suspect the former because we radio-tracked widely in surrounding areas.



This animal had established a home range in a steep gorge and fires burnt fiercely through most of this gorge and its surrounds.

Since the fires we have searched extensively for her without success.

However, the chances of spotting a koala in this terrain are not good.

As an example of koalas' abilities to hide, another female, originally released in this area was rediscovered recently, 4km from its release site, for the first time in

eight years.

The only collared male was captured and radio-tracked for the first time in 2001.

He is roaming widely through an area at St Helens Park surrounded on two sides by roads and housing.

Further housing development is planned for a third side.

In addition, eight untagged koalas and three cubs of radio-collared females were captured during 2001, ear-tagged and released.

Three koalas, ear-tagged in previous years, were recaptured, weighed, measured and released.

One of these was mauled by a dog, a month after release, and later died despite treatment.

A young female koala also was killed by dogs after wandering into a house yard at Appin.

Two koalas were taken for veterinary examination after collisions with cars and both were euthanased.

Both carried serious, pre-existing injuries which may have forced them to roaming into unfamiliar territory and so on to roads.

One injury was to the gum and teeth and the other koala had severe damage to the wrist - diagnosed as septic arthritis and osteomyelitis.

Also, we entered 132 koala sightings in our database.

This work could not have been done without calls from the community.

We gratefully acknowledge this help and hope that you will continue to call our koala hotline on 9962 9996 if you should see a koala.

with Steven Ward
and Robert Close

Good news for animals

WE had promised Karen Smith, our liaison person at the Advertiser, that we would write no more about the fires.

However, Gaylene Parker from the Southern Highlands sent us two good news stories that made us break our promise.

Gaylene, WIRES carer extraordinaire, was called to Wombeyan Caves Road where a female koala was sheltering in a low tree.

It looked as though the koala had climbed down the tree after the fire had passed and burnt her back feet as she touched the hot ground.

She then climbed back up the tree to safety.

The burnt skin on the feet (normally black) then fell off leaving pink skin.

Gaylene reports that the skin has remained pink after it healed.

The koala has now made a complete recovery and will soon be returned to her home where new leaf growth awaits her.

On February 7, Gaylene also received a burnt, debilitated wombat which must have been wandering about in pain since the fires of December 30-31.

The animal's feet were very inflamed in parts and tender, but fortunately not infected.

She wouldn't eat solid food, so Gaylene fed her on special wombat formula to build her up until her appetite returned.

She is now strong enough to be out in an enclosure, but wears mittens on her bandaged feet because her feet are too sore to walk without them.



The soreness, however, hasn't stopped her from starting to dig, despite the mittens!

Gaylene estimates the wombat must be over four years old because she's been seen in the region for the past four years and was an adult when sighted initially.

Not much has been happening around Campbelltown.

This week we've only been called about a metre long goanna at St Helens Park.

The koalas are obviously enjoying the fresh, new growth and have returned to their home ranges where they know their surroundings and keep well-hidden.

Bush walkers will have to look a little harder to spot them.

A good tip is to look out for the distinctive faecal pellets which look like large rounded olive pips.

These are very obvious now on the burnt ground.

When you find a steamer look in the trees above.

Don't forget to call us on 9962 9996 if you spot a koala.

□ STEVEN WARD and ROBERT CLOSE

Sanctuary preserved at Saint Helens Park

LAST week we heard the great news that the NSW Land and Environment Court had decided that the proposed housing development site opposite Kellerman Drive at Saint Helens Park should not proceed.

This means that 130 houses will not be constructed on what is now a woodland area overlooking the Georges River immediately south of Spring Creek.

This creek originates in Ambarvale, then enters bushland beside Woodland Road and winds through dense, beautiful vegetation for two kilometres.

It then joins the Georges River a few metres before the causeway at the gorge on Wedderburn Road.

Had the Landcom development



proceeded, we believe that Spring Creek and the creek to the south of the proposed site would have suffered severely from rubbish, builders' waste, polluted stormwater, roaming cats and dogs, trail bikes, erosion and arson.

Many people enjoy walking beside Spring Creek, but few are as dedicated to it as Karl Hahn.

Karl, no doubt, will be celebrating the court's decision.

Others with cause to celebrate are Nathan the koala and his

ladies, Martine and Elle.

These three live in the valley of Spring Creek and Karl spots Nathan regularly during his walks.

Karl also sees echidnas and swamp wallabies and a rich assembly of birds.

Also, we have seen the brush-tailed and ring-tailed possums, sugar gliders, the tiny marsupial antechinus (a mouse-sized carnivore related to the Tassie devil) and the native bush rat.

We also suspect that the platypus lives in deep pools in the gorge.

On the proposal site itself, St Helens Park residents regularly see the wallaroo or hill kangaroo; males of this species weigh in at 70kg!

We also have captured and ear-tagged young Breyk,

the koala on the site.

However, it is the vegetation described as shale/sandstone transition forest which is the critical feature.

This type of vegetation, which is prime koala habitat, is now becoming scarce.

We argued in court last year that if koalas were to survive the occasional big summer fires, that as many pockets of habitat as possible should be conserved to maximise the number of surviving koalas.

The January fires, which burnt large areas of koala habitat, particularly east of the Georges River have proved how important these pockets are.

We are still stock-taking the survivors, so please call us on 9962 9996 to report a koala sighting.

□ With Steven Ward and Robert Close

Mother Shirley unmoved by TV

SHIRLEY, our elderly Campbelltown koala, was lolling in a fork of a lofty blackbutt as the camera rolled for Channel Nine's 60 Minutes program last week.

For an old girl she was in superb condition, her ashy grey coat almost glowing with health.

In her pouch was a furless cub of about three months of age, and she had no worries in the world.

The camera crew filmed fabulous footage of Shirley doing, well let's face it, not very much at all.

Never-the-less, it was all very peaceful and beautiful.

The camera boys then moved along to that part of Shirley's home-range where she can look out over the cliffs across a long and impressive reach of the Georges River.

The 60 Minutes team was preparing a segment on the future of the Georges River.

Many people fear that coal mining, which is currently in progress under the upper reaches of the river, will destroy



it.

The nearby Cataract River has already been vandalised by miners collapsing the long-wall mines beneath the river, thereby causing cracks in the river bed.

Water then drains away leaving the river bed barren and dry.

On this particular afternoon, however, it was hard to believe that the Georges River was in danger.

It was wide, deep, calm and reflective; the trees were tall, and the sandstone cliffs sculptured and stark.

The scene was so pristine that we might easily have been beside the Archer River on Cape York.

All was not quiet however, as the whip birds competed with the robust calls of a cluster of small boys from Airds

who were romping in the river, doing back flips off the rocks, and plunging into the river from a Tarzan rope attached to a river-side tree.

For these children the river is a swimming pool, picnic spot, gathering place, and venue for games, fort-building, and all the outdoor activities of childhood – all free.

Generations of Campbelltown's youth have enjoyed the river and surrounding bushland and now cherish their memories.

To many more recent arrivals to Campbelltown, the river is for spiritual replenishment, a place where the vegetation, striking scenery, bird calls and absence of the pressures of life are deeply relaxing.

What price coal shipments!

Remember our University of Western Sydney koala hot-line 9962 9996 and if you would like film of Shirley, purchase our video from Quondong Visitor Information Centre.

□ Steven Ward
and Robert Close:

Fox danger to native animals

IN this column we sometimes mention the many different kinds of native mammals that live in the Georges River bushland.

However, before the arrival of the fox late last century, there were not only more species, but also a far greater number of individuals.

Animals such as the now vanished eastern quoll, potoroo and bettong would have been common.

In Tasmania, fortunately, we can see our native mammals in their original numbers because the fox was not successfully introduced there.

But for how long will the visitor to Tassie be able to enjoy seeing all the distinctive and unusual animals?

Alas, the fox has recently been seen in Tasmania from Launceston to Hobart.

Unbelievably, some ignorant and thoughtless people apparently have reintroduced it deliberately into this mammalian paradise.

It is difficult to imagine a more disastrous blow to our native mammals and we feel sick at heart merely thinking about it.



Consequently, immediate and decisive action must be taken to eradicate the fox in Tasmania before their numbers reach a point where control is impossible.

An emergency meeting of wildlife workers is being called to work out a strategy.

Experienced fox hunters and researchers (which of course are few in Tasmania) must be called from the mainland to join the fight and all manner of control methods must be considered, however unpopular.

Federal and state governments must all join forces to help Tasmania because that state won't be able to win the battle on its own.

Concerned people (and everyone should be concerned) must write to David Kemp, Federal Environment Minister, Parliament

House, Canberra - Kemp.MP@aph.gov.au - asking that sufficient funds be committed to do the job.

There is no doubt that the damage that the fox can inflict on the Tasmanian tourist industry will be more costly than eradication in the long run - as will the cost to set up recovery plans for all the species that will become endangered.

One slight hope is that the Tasmanian Devil will prey on young foxes and so restrain numbers.

However, we cannot afford to wait to see if this will occur and the recent rapid expansion of fox sightings in Tasmania indicates that no such control operates.

Despite this tragedy, don't forget about our local koalas.

The University of Western Sydney koala hotline is 9962 9996.

The recorded koala bellow is on 4620 3200.

The koala video is available from Quondong Visitor Information Centre.

□ STEVEN WARD
and ROBERT CLOSE

'Koala' not so cute, cuddly

AN urgent call came over the koala hotline from Pam, a local wildlife carer, reporting a koala low in a tree close to the road at the top of Wedderburn Gorge, St Helens Park.

Being close to the ground often indicates that the koala is not well, so we were rather worried.

As this area is the stamping ground of koala Nathan and his mate Elle, we were even more concerned.

Pam directed Robert to the location and sure enough, about four metres up an iron-bark, was a large, dark shape slumped in a low fork.

The dark colour was also a worry because koalas in poor condition lose their beautiful ashy-grey colour to turn dark brown.

As we came closer we could see that there was even more to worry about.

The ears were fine and hairless as though badly singed in the recent fires, and the head, neck and limbs were grossly swollen.

We assumed that the koala had survived the fires, but had developed massive infections that led to the swelling.

Alternatively, the koala had died in the fork and remained in position, swelling as it putrefied.

A ladder was needed to solve the problem, so Robert left to find one and to complete some teaching



duties. On his return he climbed the ladder armed with bag and gloves ready to collect the animal.

Only when he had touched it did he realise that he had been devilishly tricked!

The "koala" was

actually a large toy wombat wedged cleverly into the fork at just the right angle to prevent an observer from seeing the face.

Leaving the toy in position Robert descended, laughing about the trick and from relief that one of the real koalas was not suffering.

Pam, however, who had been in anguish at the thought of the animal suffering in the tree was incensed at the trick.

We wondered what sort of persons would have done this deed and whether they realised

what their trick had cost the koala research program.

In a later column we'll outline how much it costs to keep the program going.

For now we'll be somewhat mollified if the perpetrators would donate \$100 to koala research at UWS!

Don't forget the UWS koala hotline number 9962 9996 for all sightings except for a swollen, brown one in an iron bark near Wedderburn Gorge.

□ STEVEN WARD
and ROBERT CLOSE

A long, hard road

AFTER several years of study, Steven has submitted his 250-page thesis entitled "Koalas and the community: a study of low-density koala populations in Southern Sydney".

It will now be examined by three experts who will decide whether Steven's work has made a significant, original contribution to our biological knowledge.

They will also look for any flaws in Steven's techniques and arguments.

If not completely satisfied, the examiners can fail the thesis.

If unhappy with only part of the thesis they can demand that the part be rewritten, or reworked in the field.

Hopefully the thesis will pass and Steven will then be awarded the degree and be able to use the title Doctor.

It will be some reward for his many years of poverty at a time when most young men have reasonable incomes and few financial responsibilities.

His labour, however, is not yet over.

He must now publish all his information in scientific journals.



This is not an easy task and will take some months.

Each article will be sent to independent experts who will comment on its scientific accuracy and value.

If the experts approve, the articles will then be published and Steven's data will become available to the public.

Steven, however, will leave a legacy greater than that of his thesis and the published articles.

He has set up procedures for the long-term study of our koalas and has developed a massive database of sightings, radio-tracking fixes, and personal details of all the koalas we have handled over the years.

We hope to continue his work by enlisting another student but need enough money to provide

living assistance and university fees.

If any organisation in the area is interested in providing support, please contact us.

Many people and groups supported Steven.

Half of his scholarship was funded by *Macarthur Advertiser* and half by the University of Western Sydney.

The Australian Koala Foundation provided logistical support for three years, while Hacking and Georges River Catchment committees funded postal surveys.

Two good friends financed the video.

The Macarthur branch of National Parks Association provided a variety of assistance as did Campbelltown Council.

Many volunteers helped out, chief of whom was Lynn Coxall, with Wayne Foster, Miro Belik and Brett Tyler as major helpers. Then, of course, we thank all the many koala spotters who made the study possible. Keep up the good work by reporting koalas on 9962 9996.

□ Robert Close
and Steven Ward

Campbelltown Macarthur Advertiser, Wednesday, April 3, 2002

Note:

No column published on this date

Aiding the search for wallabies

LAST week's Mac Chat expressed surprise at the repeated sighting of a wallaby near Leumeah High School on Peter Meadows Road, a site also known for its regular koala reports.

The wallaby is most probably a swamp wallaby, a relatively common species in Campbelltown bushland.

Most regular bush walkers would have seen or heard it crashing away.

This species received its name because it was first seen by white settlers in swamp land.

However, it does well in many habitats.

Other species in the kangaroo family found near Campbelltown are the wallaroo and the grey kangaroo.

The wallaroo, or hill kangaroo, is a big animal and is found in Mount Annan Botanic Garden, at St Helens Park, and in the Holsworthy Range.

The grey kangaroo, however, is not common, and we have only once seen a small group of them at Wedderburn.

Several other wallaby species were once found in the area and we live in hope that they still survive in protected gullies.

We are particularly interested in sightings of small wallabies that stand less than knee high - these will be the rare ones.

Nevertheless, Robert was excited recently to hear of a mid-size wallaby sighted in a tree at Wedderburn.

This could only be a brush-tailed rock wallaby, a species once reported from



Wedderburn in the 1950s.

Sadly, this species has vanished from most of its former range south of Sydney.

A few individuals survive at Kangaroo Valley and in virtual captivity at Jenolan Caves while occasional reports emerge from the Southern Highlands.

It would be of great scientific importance if a colony still exists near Campbelltown.

The species looks rather like the swamp wallaby with a brown rump, dark shoulders, face and feet.

While both species have a long black tail, the rock wallaby's is very bushy. But what really separates the two species is the incredible agility of the rock wallabies.

They can ricochet across a cliff face with amazing speed and confidence using their long tails like a tight rope walker's balancing pole. It is this agility that allows them to climb suitable trees.

Should anyone else have seen these animals, please contact us at the University of Western Sydney immediately.

Use the same number, 9962 9996, as for reporting koalas.

□ Robert Close

Game of tag with a cute koala

APRIL is a slow month for koalas so we were delighted to receive a call from Kentlyn reporting an untagged koala in a casuarina (she-oak).

The tree was so small that we could reach the koala from the ground with our 6m extendable poles.

The koala responded to the waving flag and, with the help of spotters Mark and Justin Greening, we soon had the healthy juvenile in the bag.

Mark and Justin exercised their spotter's rights by naming him Greening.

In selecting his ear-tag colours we had hoped to give him two green ear-tags so that we could say he was Greening from ear to ear.

Neal the koala from Appin already had green tags in each ear, so Greening had to settle for one green and one orange ear-tag.

Where had Greening come from?

Our guess was that he was Remus, Lyn's cub from last year.

We had last seen Remus when he was still in the pouch and too small to eartag.

Unfortunately, he vanished before we could catch him again and we feared the worst.

So with great interest we fired up the radio receiver to find where Lyn was.

Sure enough, her radio signal was strong.

Justin spotted her in a low pittosporum about 300m away.

DNA studies, based on tissue taken from



tagging and conducted by UWS student Grace Hey, will reveal whether Greening is in fact Remus!

Of our other radio-collared koalas, Elle and Nathan were last sighted on the northern slopes of Wedderburn Gorge, while Shirley and Francesca were secure in their usual spots.

Other reports have come in from David Homer who has spotted more koalas around Campbelltown than the next six best spotters put together.

As is often the case, David spotted not just one but two koalas.

They were in adjacent trees, both hanging over the cliff above the Georges River at Kentlyn.

These trees were too dangerous to climb so we could not be sure of the koalas' identities.

However, the female had one ear-tag that we could see.

Only two females had that colour - Cheryle (last caught June 17, 2000) or most likely, Georgie, Lyn's cub from 1999.

It's great to see that Lyn's cubs are doing so well.

Koala sightings on the UWS koala hotline: 9962 9996.

□ STEVEN WARD

On lookout for platypuses

THE river pool near Bowral was calm and dark in the late evening when a small, brown shape appeared near the far shore, floated a few seconds, then arched its back and vanished.

A few minutes later it surfaced and floated side on to us, clearly showing the famous silhouette of Australia's unique monotreme – the platypus.

Forty watchers from the bank stored the vision away in their memory banks because they were in training for their participation in Platypus 2002, a survey for platypus in the Georges River.

The training was led by Tom Grant, Australia's top expert on the platypus, who described the habits of the platypus and warned us that water



rats, tortoises, fish, or water dragons could be confused with a platypus in dull light.

The survey was organised by tireless members of the Macarthur branch of the National Parks Association led by Pat and Barry Durman, was funded by BHP Billiton, and required volunteers to sit quietly beside suitable pools in the Georges River at dusk and dawn for two consecutive weekends.

Thirty potential sites had been chosen, then

Barry and helpers painstakingly plotted and flagged access routes into the rugged sites.

This had to be accomplished carefully because the volunteers had to find their way into the sites in the grey of dawn, often through thick bush and down steep, slippery slopes.

Our hopes of spotting the reclusive little mammals were high because we had received several reports of sightings.

Admittedly, most reports were more than 30 years old, but some were as recent as a few months.

To our great disappointment, the survey recorded no definite sightings.

This means that if a population of platypus still survives in the Georges River, it must

be very small.

However, we were unable to examine every pool in the river or search its large tributaries such as the protected O'Hares and Punchbowl creeks.

It's also possible that the recent reports may have been mistaken identifications of the other aquatic species.

Of those species, however, we saw only the water dragons – large lizards that drop into the river with a splash when disturbed.

We have not given up hope, and ask that anyone spotting a platypus (or a koala of course) to ring us on the University of Western Sydney Koala hot line 9962 9996.

□ **STEVEN WARD**
and **ROBERT CLOSE**

All at peace by the river

LAST week we discussed the lack of sightings of platypus in the Georges River during the survey Platypus 2002.

For the many volunteers, however, the experience was enjoyable.

There was the beauty of the riverside with its sandstone cliffs and tall blackbutts.

There was the peace of sitting beside a river pool as the sun went down and hearing the birds sing, then settle down for the night.

Getting up before dawn was a little more challenging.

However, once we were in position it was marvellous to hear the bush come alive and see the sun hit the treetops.

The volunteer platypus-spotters enjoyed the camaraderie of their fellow volunteers



at the campsite at Cataract Scout Camp.

The only animals seen in the river were water dragons - large lizards which sit beside the river and drop into it with a splash when disturbed.

As Tom Grant, the platypus expert, explained to us during the training session for volunteer watchers, platypuses rarely make loud splashes, so we had to be careful not to let wishful thinking mar our survey by recording a lizard splash as a platypus sighting.

On the river banks, however, there was more activity.

A swamp wallaby, obviously amazed to find Robert sitting quietly beside the river, crashed off through the underbrush.

Further upstream, Beth Michie spotted a small grey wallaby moving up a steep slope.

This was the same description and the location as an earlier independent report and one which tantalises us.

Are there still rock wallabies living beside the river?

An expedition to the site is required to resolve the question.

Other mammals were recorded during a spot-lighting expedition in bushland between Appin Road and the Georges River.

We spotted several sugar gliders - small,

beautifully-marked gliding possums which were usually clinging head-downwards in small trees.

We also found the more familiar ring-tail possums, with their prehensile, white-tipped tails.

These animals were quite common in places where a mid-storey of thick growth provided food and suitable places for them to build their communal nests.

No koalas were seen during the survey despite the fact that there were numerous koala feed trees and to our eyes the habitat looked perfect for koalas.

Don't forget the UWS koala hot line on 9962 9996 if you should see any koalas or any native mammal.

□ STEVEN WARD
and ROBERT CLOSE

Preserve our wildlife

CAMPBELLTOWN Council recently awarded Robert Close the 2002 Award for service to the heritage of Campbelltown.

That service included the studies of Campbelltown's koalas and the publicising of Campbelltown's marvellous natural heritage via the weekly column published in these pages and through talks delivered around the community.

In accepting the award at the recent heritage evening, Robert stressed that he shared the award with the many people who had devoted much time and effort to the koala studies.

He singled out

locate sufficient koalas for the studies without the enthusiastic reporting of koala sightings by the community.

In working to study and preserve Campbelltown's koala population our koala team has always known and stressed that our most important heritage is not the koalas but the marvellous bushland that sustains them.

That bushland flanks the Georges River and its tributaries and is not only a region of great scenic value but is important for its natural state.

Spared the axe because of the relative infertility of the

sandstone soils, our bushland is still amazingly unaffected in its more isolated areas.

Few major cities in the world have such a natural resource on their doorsteps.

As the years pass, this resource will become increasingly valuable as a place for passive recreation and as a retreat from human worries.

If our koala work has helped protect this bushland until such time as the entire community recognises the bushland's worth, then our work will have been doubly worthwhile.

Sadly, we've a long way to go before we can overcome ignorance of

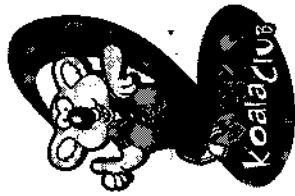
the bushland's value. Recently while radio-tracking koalas at St Helens Park, we were almost run down by hoons careering along fire trails in an old car.

The occupants were oblivious to their shattering of the peace and to the damage that they were inflicting on the fragile fire trails and native plants.

No doubt the car now lies abandoned amongst the many other rusting remains and personal debris that disfigure this otherwise beautiful area.

Remember the koala hotline 9962 9996 and the koala bellowing on 4620 3200.

□ ROBERT CLOSE and STEVEN WARD



Steven Ward for his great efforts in all aspects of the koala program.

He also spoke of the great contribution made by Lynn Coxall for her voluntary work in radio-tracking the koalas, and enthusiastic assistance with captures, data entry and community publicity.

He also stressed that the koala team would have been unable to

Mysteries of a travelling koala

RECENTLY a 7kg male koala materialised at West Pennant Hills in the Cumberland State Forest.

This forest consists of 40ha of native forest completely surrounded by suburbs.

It began in 1938 from cleared land of which one third was planted as an arboretum while the remaining area was allowed to regenerate into native forest.

Where did the young koala come from?

Given that the Sydney Koala Park Sanctuary is only 1km down Castle Hill Road an obvious answer is that he is an escapee.

However, on testing, no signal could be found from a Koala Park micro-chip.

These chips are like those now used to mark domestic cats and dogs.

Is it possible that the koala actually moved into the forest from a natural population elsewhere?

He might even be the koala that we mentioned in this column last year that was seen in Mid



Dural by a lady who was having a morning cuppa on her back verandah.

That sighting is not too far from the forest.

We also reported a road-killed koala on Mona Vale Road last year.

So koalas are certainly moving around the northern suburbs.

Other koalas have been reported from the forest in the past.

Just before Christmas a female was spotted, and three years ago a female with young also appeared in the forest and was claimed as an escapee by the Koala Park.

We at the University of Western Sydney will soon be able to check the origins of koalas with the expertise that our masters student, Grace

Hey, is developing to identify DNA fingerprints.

She will be able to do this from a tiny bit of tissue from the koala or even from its faecal pellets.

Koala Park was created in the 1920s probably from founding stock from Queensland or northern NSW.

Consequently, we expect that if the koala is wild-raised, its DNA is likely to differ from that of animals in the Koala Park.

We'll keep you informed of the progress of this story.

At present the koala has been fitted with a radio collar and has been enjoying the smorgasbord of luscious eucalypts in the arboretum.

When the spring-time koala madness begins, I expect he'll be clamouring at the gates of the park to get in!

In the meantime remember to report any koala sightings on our UWS hot-line 9962 9996.

□ STEVEN WARD†
and ROBERT CLOSE

Koala sac – nature's miracle

FOR koalas to survive on eucalypt leaves they need a number of interesting adaptations.

Perhaps the most amazing of these is their caecum (pronounced seekum).

This is a sac found at the junction of the small and large intestines and is like a fermentation vat in which leaf fragments are digested with the aid of special bacteria.

It is quite wide, full of a thick, green gumleaf soup, and reaches the enormous size of two metres!

Coiled in the front of the koala's belly, the caecum helps give the koala its familiar, portly appearance.

But what a load to lug up and down a tree!

A reasonable guess would be that the caecum is very



important to the koala.

Yet researchers estimate that it provides the koala with only 10 per cent of its energy.

Why then does it carry such a large sac?

Surely a tree-climbing animal would want to carry as little weight as possible.

Koalas, in particular, have little energy to spare as they expend so much effort in detoxifying the poisons contained in the eucalypt leaves.

Perhaps the caecum has some other function

besides providing energy.

A potential use occurred to us when we watched a koala being caught in immensely tall forest near Coffs Harbour.

Firstly, a tree climber with climbing spikes climbed 40m up a neighbouring tree.

Then another climber clambered halfway up another tree where upon they waved their flagged poles at the koala hoping to coax it down the tree.

To our horror the koala leapt out into space falling the 40 dreadful metres.

As it fell, it spread its elbows and knees and hit the ground as though "doing a belly-flopper".

To our great relief, the koala paused only a few seconds before picking itself up and

moving away.

Before it could escape it was captured and taken for a veterinary inspection.

Fortunately, the 10kg adult male suffered no ill-effects and months later is still active in the forest.

Perhaps the caecum, which would be the first organ to hit the ground, absorbs the impact of the fall, acting like a car's air-bag in an accident.

Maybe parachutists could test the idea for us by designing a caecum-crash bag!

Remember to call our pager hotline 9962 9996 if you see a koala and if you hear strange noises at night.

Check it with our koala bellow on 4620 3200.

**□ ROBERT CLOSE
and STEVEN WARD**

High costs in contact with koalas

As autumn proceeds into winter, koala activity decreases and the koala hotline becomes silent.

There has been only one recent call and that was to report again the swamp wallaby of Peter Meadows Road.

The lack of news from our koalas is an opportunity to consider the cost of our basic research.

Firstly, there is the cost of our radio-tracking program.

We have six animals with radio-collars and each collar costs \$160.

We have two collars per animal so that we can change collars each year and send the used one off for refurbishment at a cost of \$40 each year.

Then there is the cost of the pager hotline.

Hire of the pagers is \$30 per month with an additional cost of 55¢ per call.

Our average yearly cost for this service is \$800 per year.

An initial grant from the university allowed us to purchase a small motor cycle and all the ropes and poles and climbing equipment that we require, as well as a radio receiver worth \$2000.

All this material is now 10 years old and needing replacement.

Also, there are the servicing costs of the motor cycle.

Whenever a koala catch-up is required or when volunteers are working, the motor cycle is inadequate and we have to rely on cars.

Costs of this are carried by the car owners.

We have on average of 20 catch attempts per year.

Our biggest time cost, however, is the time



koalas.

This is usually undertaken by volunteers, specifically Lynn Coxall and her helpers.

Without their help, we would not be able to carry on and it is difficult to place a monetary value on their contribution.

However, we could estimate eight hours per week at \$25 an hour for two people plus 150km of travel costs at 60¢ per kilometre.

That is \$460 per week.

Another significant time cost is that required to enter all the data on the database.

With an average of 100 sightings per year and 30 minutes to record, map, check and enter each sighting, there is another 50 hours of volunteer time - that is \$1250.

We cannot hope to continue our work based solely on volunteer assistance.

Yet finding funding for koala studies is becoming increasingly difficult.

People can help by purchasing our video from Quondong Visitor Information Centre or by sending \$25 to us at the University of Western Sydney.

To report koala sightings call 9962 9996.

□ STEVEN WARD and

It's diprotodon mania

WHEN HG Nelson and rampaging Roy Slaven unveiled a new sculpture of the extinct diprotodon at Campbelltown City Bicentennial Art Gallery last Saturday, they stimulated discussion on what the animal was really like, what conditions were like here at the time when the diprotodon roamed Australia and how it was related to existing Campbelltown mammals.

The last remaining species of Diprotodon was huge, the size of a hippopotamus, standing almost two metres at the shoulder with a high arched back, a short tail and a massive head.

Many skeletons were discovered in a former lake bed in Victoria where they had been trapped in mud which still carries the imprint of their fur and whiskers.



The fossils clearly show babies in the pouch region, demonstrating that diprotodons were marsupials.

Their teeth are those of herbivores (vegetation eaters) and most fossils have been found in inland areas rather than near the coast.

They disappeared about 20,000 years ago, a relatively short time in geological terms, and discussion rages about the cause of their extinction.

One view is that climatic conditions

changed so quickly that the animals could not survive; another is that aboriginals were the key, either through hunting or by changing the habitat of diprotodons as a result of their use of fire.

In the Campbelltown region 20,000 years ago, conditions would have been very different to those we enjoy today.

The climate would have been cooler and drier, the sea level 70m lower and the coast much further east.

We don't know whether diprotodons actually lived at Campbelltown.

However, because there were several giant marsupial herbivore species, it is likely that at least one of the giant mammals would have lived in the region.

Much has been said of the diprotodons being a sort of wombat.

However, a giant wombat also lived at the same time as diprotodons.

Although the lower jaw of existing and extinct wombats, with its two large incisors at the front, resembled that of the diprotodons, this character is, in fact, also shared by koalas, possums, gliders and all the kangaroo family.

It is much more accurate to say that the wombats and diprotodons once shared a common ancestor.

That would have been 10 to 20 million years ago!

Remember to call the UWS koala hotline 9962 9996 if you see a koala or a diprotodon!

Our video is on sale at Quondong Tourist Information Centre.

□ ROBERT CLOSE and STEVEN WARD

Tiger resurrection — devil of an idea

THE Australian Museum in Sydney recently publicised progress made on the attempt to resurrect the Thylacine (Tasmanian Tiger) from extinction.

The plan is to collect DNA (the genetic instructions that enable each organism to construct itself from the fertilised egg) from pickled and dried specimens.

Once the museum's researchers have recovered a complete set of DNA, they will insert it in an egg of a living Tasmanian Devil.

This egg, which will have had its own DNA removed, should be able to process the instructions contained in the Thylacine DNA and will then be inserted in the uterus of a female Tassie Devil.

It should then develop



into a new Thylacine.

We tell our biology students at UWS that almost anything is possible in the current DNA revolution.

However, the difficulties facing the museum are enormous.

Firstly, the Thylacine DNA codes for 30,000 individual proteins and there is a separate gene for each protein.

Each gene contains 1000 or so chemical letters.

The complete Thylacine code would

require six books the size of the Sydney telephone book with equivalent font size and spacing!

Amazingly, all this information is carried inside each of our bodies' cells.

Unfortunately, the DNA, which is sorted into long, thin chemical chains called chromosomes, breaks into tiny pieces after death.

So imagine the six telephone books all torn into pieces and mixed up with the DNA of bacteria that were on the Thylacine bodies.

Researchers now have to collect and sort all the Thylacine pieces of DNA and reassemble them in exactly the correct order.

Not a piece can be missing or out of place.

So far, one of the 30,000 genes has been isolated.

This is a significant

result because now its sequence can be compared with that of the Tassie Devil.

If it is very similar, then it may be possible to use a lot of Devil DNA to construct the new Thylacine.

Whatever way you look at it, it will be a long road to success.

I would be surprised to see a new Thylacine in my lifetime. Nevertheless researchers will learn a great deal about Thylacine and Devil DNA in the process.

It all makes us more determined to protect our living treasures.

That will only be achieved if we protect our priceless natural vegetation.

If you spot a koala, call us immediately on the UWS koala hotline 9962 9996.

□ By STEVEN WARD and ROBERT CLOSE

Koala in mad dash to safety

THE police seldom receive complaints that their call-response time is too short.

However, we were complaining recently.

St Helens Park residents, who had spotted a koala in Cusack Close, notified the police and us that a koala was perched on a fence, with two large dogs going frantic in the backyard.

Our expectations of an easy catch, however, were dashed because the police had arrived before us and shooed the koala off the fence and up a tall eucalypt.

We arrived to find the koala in an uncatchable position 20m high and feeding contentedly.

Soon afterwards, a WIRES volunteer arrived, called by another resident.

This shows that despite a 10-year campaign and six years of koala columns, many residents are unaware that all koalas should be reported to us immediately on the UWS koala hotline (9962 9996) at any time of day or night.

We will notify WIRES if the animal needs special care.

As we chatted with residents, we learned that many of them had no idea of our work nor of the fact that koalas were in the vicinity.

In fact, we have radio collars on Nathan and Elle in Spring Creek, a mere 300m from where we stood.

This koala had no radio collar, but it did have ear tags.



Alex, a young male captured and released near Wedderburn Road (about 2km away) in October 2000!

It's always fascinating to hear news of our tagged animals (70 in all).

We wanted to catch Alex to check his weight and condition, so we asked residents to call us during the day if they saw Alex move.

We received calls later to say, firstly, that boys were throwing stones at him and, secondly, to report that he was descending.

By the time we arrived, Alex, after reaching the ground, had retreated high up the eucalypt.

It was now dark, so we sat motionless at the base of the tree in the hope that he would descend again.

After 40 minutes, however, we gave up and drove home only to find a message that Alex started descending the moment we left and was now up a nearby tree.

Back we went and found Alex high up a huge stringy bark, again in an uncatchable position.

I was sure I could see him laughing at us!

□ STEVEN WARD

We must preserve Alex's wonderland

LAST week we described how Alex, the young koala from St Helens Park, made fools of us in our attempts to catch him to check his weight and condition.

We left him browsing contentedly in a tall stringy bark in the middle of Moncrief Park.

This park, though small, contains several remnant trees of the original bush which in that area is known as Cumberland Plain vegetation.

This vegetation type, which includes the grey box (eucalyptus moluccana) and the forest red gum (E. tereticornis) has been cleared largely from the Sydney basin and only about six per cent remains.

It was great to see Alex feeding happily in



a grey box earlier in his adventure.

This observation demonstrates the importance of Councillor Verlie Fowler's recent public statements when she bemoaned the bulldozing of remnant trees in a new development site close to Moncrief Park.

Such remnants would have allowed Alex and his mates to venture deep into Campbelltown suburbs to delight residents and to remind us that the bush is close by.

Residents must

make a fuss when they hear of any such clearing.

Our trees are too important to lose.

We were a little worried to be leaving Alex in Moncrief Park.

Between the park and the safety of the Spring Creek bushland stand about four rows of houses.

To the west and separated by another four rows of houses we could hear the roar of cars on Appin Road.

And all around us we could hear the barking of countless dogs.

So it was clear that Alex would have some adventures before reaching safety.

However, our experience has shown us that koalas are capable animals and before Alex becomes strong and clever enough to control an area containing

females, he will have to learn all the tricks of survival.

We were not surprised therefore to receive a call a few days later from Karl Hahn, Spring Creek's most enthusiastic protector, to say he had spotted a koala near Fullerton Crescent at the creek's head.

Nathan, the creek's top koala, and Elle, his mate, were way across the valley by Wedderburn Road, so we suspect that Karl's koala was Alex.

However, Martine and Breyk also could be in the vicinity so we can't be sure.

If any St Helens Park residents can fill in Alex's travel details, we would love to hear from you.

Call us on the UWS hotline 9962 9996.

□ STEVEN WARD and ROBERT CLOSE

Search for platypuses

THE Macarthur branch of the National Parks Association recently organised a search for platypus in the Georges River.

The expert on that quest was Dr Tom Grant who has been studying platypuses for 30 years.

His feeling was that, although the search failed to find platypus, conditions looked suitable in many places and that we should not give up yet.

Dr Grant should know for he has captured more than 1000 platypus in various rivers.

We recently had the opportunity to see Dr Grant in action in the Shoalhaven and Wollondilly rivers.

We were actually seeking samples of platypus faeces for the Sydney Catchment Authority to see whether they contained giardia and cryptosporidium, the two parasites that caused so much trouble two years ago in Sydney's water supply.

Dr Grant catches the platypus in nets that have floats on the surface, but with the lower edge unweighted.

Once the platypus hits the net, it floats to the surface with the net.

If the net were weighted, the platypus might become caught in the net below the surface.

Being an air-breather it would quickly drown.

Consequently, Dr Grant would inspect the net by torchlight from the bank every 10-15 minutes and every hour would physically check each net by boat to ensure that it had not snagged on a



branch or rock, thereby preventing the net from floating to the surface.

On one such inspection we found a huge 70cm long carp entangled in the net; it certainly would have prevented a netted platypus from reaching the surface.

Over two weekends we caught 12 platypuses, but despite Dr Grant's assurances that they would spray fishy-smelling faeces all over us when we handled them, we had difficulties collecting the required three grams of faeces.

It was a great privilege and delight, however, to see such unique and beautiful animals close up.

Of particular interest was the size of the male's spurs.

These occur on the inside of the hind leg and were dripping with venom.

The platypus will drive both spurs into a captor's arm and the angle and force of entry makes them very difficult to remove.

Remember to call us about sightings on the UWS koala hotline: 9962 9996.

□ STEVEN WARD and ROBERT CLOSE

Season for frisky koalas

JULY is the time when life starts to become exciting again for koalas.

An experienced koala watcher from Coffs Harbour was telling us this week that the first thing that happens in her region is that the males sort themselves out.

So in July she sees a lot of fighting, pushing and shoving as the male koalas establish their areas and the up-and-coming young bucks try and put pressure on the old boys.

Then she sees a break of three to four weeks when all the koalas catch their breaths, then mating begins and the action starts up again in late August and September.

Because koalas are so common at Coffs, she



sees a lot of activity and so is sure she is correct.

In Campbelltown our koala numbers are much lower and it will take us longer to accumulate enough sightings to test her ideas.

So we need the community to tell us when the koalas start bellowing (listen to the koala bellow on 4620 3200 to be certain).

At present our Kentlyn koalas, Lyn and Shirley, have furred babies poking out of

their pouches.

Both mothers are in beautiful condition: a light ashy grey colour that denotes excellent health rather than the tired, grey-brown colour of an animal in poor condition.

The babies are now about six months old and will soon appear on their mum's backs.

Bushwalkers at Kentlyn will be lucky to spot them, however, because Lyn and Shirley keep to thick foliage.

Both these mothers are now about 10 years old and know all the tricks.

Their cleverness makes them difficult to catch during their annual radio-collar change.

For Shirley, this catch must be completed in July, so Robert is now

going into training for the climb!

One of our ace koala spotters Karl Hahn reports that he's feeling especially kindly to koalas at present.

He noticed in the racing pages a horse named Koala and feeling it was an omen, backed it and won.

Fortunately, he avoided Blue Gum in the same race.

He must have known that blue gums are scarce in the Campbelltown region.

Now that the koala season is approaching, don't forget our koala hot-line 9962 9996.

Quondong Tourist Information Centre has copies of our koala video.

□ ROBERT CLOSE and STEVE WARD

Koalas eat trees to death

17/7/02

WE have mentioned previously the paradox that koalas in many parts of NSW are endangered while on Kangaroo Island, South Australia, and in parts of Victoria, they are so abundant that they are eating their trees to death.

Robert spent last week in Victoria attending the annual Conference of the Australian Mammal Society catching up with the situation.

On Kangaroo Island, the koala population, originally founded with 18 animals in 1923, now exceeds 27,000 and forests of manna gum are being destroyed.

In response, the South Australian government has sterilised 3600 koalas and translocated 1400 of



these to the mainland at a probable cost of at least \$200 an animal.

As a result, the breeding rate of females has decreased from 45 per cent to 15 per cent in the areas of optimal habitat (one per cent of the island).

However, the latest research shows that only 1600 koalas live in this optimal habitat where koala density is more than two hectares.

In contrast, medium

habitat (0.86/ha) holds another 11,000 koalas while poor habitat (0.36/ha) contains almost 15,000 koalas.

So as fast as the government translocates koalas from the best habitat, others move in from the less favourable habitat.

The manna gum forests are therefore doomed and the South Australian government is spending hundreds of thousands of dollars in vain.

We also learned that isolated forestry areas in mainland Victoria have the same problem.

Koalas were only introduced to Mount Eccles National Park in 1973, yet the current population is now probably 7000 despite the sterilisation and translocation of 4600 female koalas.

New and inexpensive means of birth control in southern koalas is clearly needed.

Such methods, discussed at the conference, will administer sex hormones by darting.

Unfortunately, these methods still need a year or two to perfect.

Campbelltown koalas are at low density (0.03-0.1/ha) and are not confined like those on islands or in small forests surrounded by farmland.

However, we're still not sure if our numbers are increasing.

So don't forget our UWS koala hot-line number 9662 9996 for any sightings at any time.

□ ROBERT CLOSE
and STEVEN WARD

Adventures of two koalas

E LLE is an elderly koala who lives in the valley of Spring Creek which drains Ambarvale and St Helens Park and runs into the Georges River at the Wedderburn causeway.

Elle roams from the ridge north of Wedderburn Road on the Campbelltown side to the ridge on the southern side of Spring Creek.

This southern ridge is owned by Landcom and was the subject of a Land and Environment Court dispute over a large housing development last year.

Elle shares her valley with Nathan, a large and mobile male koala.

Both animals have radio-collars which allow us to track their movements, work out what they are eating and how they are using



their habitat.

Nathan was right in the middle of the Landcom site recently as we had predicted during the court case.

As yet, Elle has not ventured on to the actual site and we are interested to know why Nathan was there.

Is there another female living there or maybe a young male has set himself up there and is challenging Nathan?

Our guess is that Alex, whom we recently spotted for the first time in 18 months in nearby

Moncrief Park, is challenging Nathan.

Alternatively, Martine, whom we have not seen for almost two years may be in residence.

We ask everyone who walks in that bushland to keep their eyes out for us and call the hotline if they spot a koala.

Nathan's radio signal, however, is not as strong as it should be, so we are waiting for him to be found in a tree suitable for a catch.

We require a tree that's not too large, with not too many alternative escape routes (lots of big branches) and without neighbouring trees which he can climb or jump into.

Unfortunately, Nathan chooses trees that have all of those features.

So we're a bit worried that his batteries may

expire before we catch him.

While looking for Nathan this week, however, we found Elle in a small tree, perfect for catching.

It was so good that we had her in the bag in 10 minutes.

Her condition was good, but her pouch was empty and the teats were inactive.

So she has missed a season's breeding despite Nathan having been with her all year.

This is not unusual for koalas, although our Kentlyn animals are very regular breeders.

Remember our hotline 9962 9996 as this year's breeding season will soon be under way.

□ **STEVE WARD**
and **ROBERT CLOSE**

Biologists keen on our fauna

SINCE the Campbelltown, Penrith, Parramatta and Hawkesbury University of Western Sydney campuses have merged, there have been several positive results.

For one, we at Campbelltown have begun to work with biologists across western Sydney who also are interested in the flora and fauna of the Sydney basin.

Recently, Stephanie Clarke from Hawkesbury, who is an expert



on the Cumberland Plain snail, contacted us to report that the rare snails were surviving on the bushland between our Campbelltown campus and Macarthur railway station.

She also reported seeing a pair of swamp

wallabies in the same bushland.

This sighting was reassuring, although not unexpected.

A road kill was reported last year from near the Glen Alpine roundabout on Menangle Road and we had seen a footprint near one of the large dams on campus.

This patch of bush is also home to an enormous goanna that feasts on the birds that nest in the tree hollows of the ancient redgums that thrive there.

At a recent cross-

campus conference, I also spoke to Danny Wotherspoon from Hawkesbury, who is completing a PhD on the behaviour of the bearded dragon, a medium sized lizard that lives in the Sydney basin.

He reported that this attractive and interesting animal was decreasing in number and also in size, as a result of bush removal, foxes and cats.

The size is decreasing because the lizards don't live long enough to reach their full size of about 60 cm.

We occasionally had seen this species killed on the road at Wedderburn and did not realise that it was in trouble.

So watch out when you drive and keep your cats indoors.

Danny also reported that the smaller dragon,

the Jacky lizard, also was becoming scarce on the Sydney plain.

In fact, Campbelltown was one of the few places where there are still reasonable numbers.

So, we would be interested to hear from people who regularly see either of these two dragon species in specific areas.

If we don't protect these areas, we'll suddenly find they've gone for good.

On the koala scene, the Cashill family was delighted to spot a koala at Ruse and Shirley's babe, also at Ruse, has moved from Shirley's pouch to her back.

Remember to report koala sightings on the UWS hot-line number 9962 9996 and to listen to a koala bellow ring 4620 3200.

□ STEVEN WARD
and ROBERT CLOSE

Campbelltown Macarthur Advertiser, Wednesday, August 7, 2002

Note:

No column published on this date

Steve has sad ending

THIS week we had to choose from three stories: Nathan piddles on Rob from a great height, the swimming koala or the death of Steve.

After discussion we decided to drop the first one, leave the swimming koala until next week and concentrate on the third.

Steve, in this case, was not Steven Ward, but an ear-tagged, male koala that was killed on Appin Road recently.

We were notified by Appin resident Julie Brodie, who found the koala during the afternoon lying a metre from the road and just 2km from the Appin corner.

Why no one else reported it is a mystery as the body was clearly visible and had been dead for some hours.

We remind people that our research depends on callers reporting koalas - dead or alive - to us.

Without your help we could not find sufficient animals to conduct the study.

As it happened this road-kill was a particularly important one.

Its coloured ear-tags identified it as Steve whom we had last seen on July 25, 1997, when we caught him just south of Wedderburn Gorge.

At that time, Steve was 18 months old and weighed only 5kg.

During the intervening years Steve had bulked up to 10.2kg.

At this age he was big and mean enough to control an area with females.



However, the place where he was found dead is not a known breeding area. Close inspection of the nearby bush is clearly needed.

Unfortunately for Steve, one of his eyes was blind and shrunken; perhaps this handicap led to his death on the roads.

In fact, we've found that several other road-killed koalas also have had disabilities.

As the crow flies, Steve had walked a distance of 10km since his initial capture, presumably along the George's River valley.

This route has now been taken by several of our tagged males, but how they select their path is unknown.

Perhaps they follow particular species of trees that are found beside the river or maybe trees close to the river have their roots in the water table.

Leaves of such trees may be more succulent and nutritious.

Information from dispersing animals such as Steve are showing us how koalas travel.

So please notify us on the UWS hotline (9962 9996) if you spot a koala.

□ STEVEN WARD
and ROBERT CLOSE

Kris not in the swim

KOALAS often have been recorded as swimming, sometimes considerable distances.

Our first instance of a swimming koala in Campbelltown was recorded recently when Ted Smith was driving across Wedderburn gorge.

Ted noticed a young koala on the causeway that had tried to climb one of the floppy indicator signs as the car passed.

Anxious for the animal's safety, Ted parked his car and went back to shoo the koala to safety.

The animal had other ideas, however, and like the swagman in Waltzing Matilda sprang into the billabong where Spring Creek joins Georges River.

Fortunately, Ted had a small torch and searching around the pond found the youngster clinging to a log.

Ted then grabbed the dripping, gripping animal, put it on his shoulder and took it back to his car.

Fortunately for Ted's shoulders, the young koala must have been so stunned by the cold water that it had little fight left in it.

Once the animal was in the car and although it was midnight, Ted obeyed our instructions to call the UWS koala hotline at anytime of



the day or night.

Lynn was soon on the scene and noted the young koala was in a dejected state.

She decided the koala needed drying and a good warming up, so she took it home for a dose of care and attention.

Next morning the koala was much more lively, clear of eye and clearly ready to be on its way.

So Lynn called Ted and arranged to meet him and his family back at the release site at the gorge.

The koala was found to be a young female, without young and probably recently independent.

After receiving its ear tags, the koala was ready to go.

But first Ted claimed his naming rights and named the koala Kris after his wife.

Let's hope we see a lot more of the new Kris in the coming years.

Remember to call our UWS koala hotline on 9962 9996 any time (even midnight in mid winter!

□ STEVE WARD and ROBERT CLOSE

The Macarthur Advertiser, Wednesday, August 21, 2002

On the trail of an elusive koala

OCCASIONALLY we lose contact with one of our radio-collared koalas, usually because water has seeped into the aluminium battery container.

Alternatively, the aerial is bitten off or the koala has moved beyond the range of its radio signal.

The worst scenario is that the radio transmitter is damaged by fire, car accident or dogs.



All these alternatives mean that when we lose contact we must travel extensively around the district searching for the signal.

Eventually, after about 15 months, the battery gives up and we stop searching.

That was the case with Amanda, originally captured as an adult in September 1997 between Leumeah High School and the Buddhist monastery.

Steven then plotted her home-range in the bushland behind the monastery and beside Peter Meadows Creek.

When her transmitter failed in

December 1997, we searched extensively for her without success.

Reports of koalas being hit by cars on Peter Meadows Road made us fear the worst.

However, 18 months ago a local motorist sent us a photograph of a koala that he had seen crossing Peter Meadows Road, which clearly showed a radio collar.

So again we searched the area in vain.

Recently we received

another call to say that a collared koala had crossed Peter Meadows Road.

Lynn immediately set off and, to her great joy, found Amanda in a small Turpentine tree about 40m from the road.

However, by the time Robert and the catching gear arrived, Amanda had vanished.

Koalas sense when they are vulnerable and will often move to a larger tree if they think

they can do so undetected.

Thinking like koalas, we then searched the nearest, most densely foliated trees we could find.

It took us 30 minutes to spot her even though she had moved only 10m! She was at the very top of a tall, dense turpentine tree and only barely visible from one tiny angle.

It was a difficult climb to catch her, but once she was safely in the bag

we found her to be in excellent condition. The collar had left no mark and she weighed 8.5kg.

There was no young in the pouch but it looked "ripe". That is, a birth is imminent.

We'll let you know in six months when the cub becomes visible.

Motorists on Peter Meadows Road should drive carefully and call the hotline 9962 9996 if you spot a koala.

□ STEVEN WARD and ROBERT CLOSE

Bilpin proves a real handful

RECENTLY we received an urgent call from Vicki Lett of the Blue Mountains National Parks and Wildlife Service about a koala spotted at the base of a tree in Bilpin.

Previously two koalas, both male, had been caught in the lower Blue Mountains but the location of the breeding colony remains elusive.

Given the lack of information, NPWS was keen to catch the Bilpin animal, hence their urgent call to us!

When Steven and Lynn arrived, they met up with staff from NPWS, residents and a team from Active Tree Services with a cherry picker.

The cherry picker was essential as the koala had now climbed to the top of a 20m tree which was too thin to support our weight.

The cherry picker was soon in place, with Steven heading skyward in the one-person bucket.

However, even when



the cherry picker, the extendable pole and Steven were all at full stretch, the flag would only reach as far as the koala's bottom.

To move the koala, the flag had to be waving above its head.

Disappointed but undeterred, Steven descended.

An improvised extension was fitted to the pole and the cherry picker was manoeuvred into a slightly better position.

This time Steven was able to get the flag above the koala's head and the koala soon came down to catchers Lynn and John Starke at the base of the tree.

We inspected the koala, which we nicknamed Bilpin, and found that it was a

6.75kg male, about three years old.

We were amazed to find that the koala had scars from surviving last year's fire at Christmas.

The koala's ears had been burnt as they were smaller than they should have been, and the fur was regrowing.

The pads on Bilpin's feet and hands also had pink patches indicating scars from burns, probably from walking on hot ashes after the fire.

Despite having been through this ordeal, Bilpin was in good health, and after having eartags fitted, he was released back into his tree.

It will be fascinating to see where Bilpin next turns up.

As the koala dispersal time is now in full swing, sightings are likely to be frequent.

Remember our UWS koala hotline 9962 9996 to report any sightings.

□ STEVEN WARD and ROBERT CLOSE

Bushland's rich harvest

LAST week's Mac Chat described how Steven's introduction to koalas in 1995 was nearly curtailed by a red-light running Ford Festiva that lifted Robert's orange Datsun 120Y five metres sideways along Appin Road.

Fortunately for our koala studies, the driver had pranged her 4WD earlier in the week!

Since that time we have used our borrowed time and the Mac koala column to alert Campbelltown readers to the marvellous resources of the Georges River bushland that nourish our koalas.

Our theme has been that sustainable use of this bushland will ensure survival of not only the koalas but all the lesser known but equally important bushland species.

It was encouraging, therefore, at a public meeting this week to hear speaker after speaker passionately declaring that planning for a new development immediately south of Macarthur Square must be sustainable and a benchmark in design for ensuring the area will never be an environmental disaster.

The proposal for the Macarthur regional centre will include 1000 residences, some possibly three or four storeys high, arranged around scenic gardens and water features with shops and facilities easily accessible to all.

We've had a special interest in part of the proposed site where the Bow Bowing Creek flows



between Macarthur railway station and the university.

Here a small, unique patch of bushland features century-old red gums and rough-barked apples (*angophora floribunda*) with some grey box eucalypts, a lonely iron bark, and an understory of sweet bursaria, wattles and kangaroo grass.

This is a rare association of plants and must be merged sustainably into the project.

Swamp wallabies shelter in the thick underbrush, a large goanna regularly climbs the large old trees to feast on the many bird species nesting in the tree hollows, and the endangered cumberland plain snail survives under discarded bark.

On the eastern side of the railway line the bushland of the proposed site has been poorly treated, but many medium-aged native trees remain.

We ask the designers to plan around these trees so that the new suburb will have a flying green start.

Don't forget our UWS koala hotline - 9962 9996.

□ STEVEN WARD and ROBERT CLOSE

On the trail for koalas

A MESSAGE came in on our koala hotline pager last week to say a koala was seen crossing the Appin-Bulli road.

This was an important call because we've only had two sightings previously from this road – one only last month when koala Steve was killed by a car.

Unfortunately, the most recent caller did not leave a name or telephone number.

Consequently we don't know which end of the road, or when, the koala was seen, or whether it had eartags, or a cub on its back, or if it was big or small, or in good or bad condition.

So we appeal to the caller to ring us again, either on the pager number or Robert's work number – 4620 3203.

Don't be put off if the



receptionists seem abrupt.

Unfortunately, they know nothing about the project and are trained only to record the message and relay it to us.

Last week's Advertiser showed a photo of a fire in Leumeah right in Amanda's home range.

Amanda, of course, is the koala we rediscovered, after four years, beside Peter Meadows Creek.

Her radio-collar enabled us to find that she had escaped the fire unharmed.

This is the second big fire that she's had in her home range in the past 12 months.

Another fire, in Ingleburn's bushland, flushed out a new koala on Sunday.

Varroville rural fire service members found a young female sheltering in a tiny tree on the edge of the fire front.

She was only a year old and in beautiful condition and was one of the easiest catches that we've had: we only had to bend the sapling

over and slide her into the bag.

She was soon fitted out with fire service-coloured eartags (yellow and orange) and sent on her way, but not before the fire unit exercised their naming rights to call her Varroville.

Not so lucky was another young female who was killed by dogs this weekend near the Boxvale track at Mittagong.

Les and Bonnie Morris who have lived on their property for 50

years said they had never seen a koala there before.

When Robert gave his famous impersonation of a koala bellowing, they agreed, that they would have been hearing similar noises over the past month.

If you want to hear a real version of the bellow call 4620 3200.

To report a sighting call the UWS koala pager 9962 9996.

□ STEVEN WARD
and ROBERT CLOSE

Campbelltown Macarthur Advertiser, Wednesday, September 25, 2002

Note:

No column published on this date

Plea for details on sighting

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Consequently we don't know which end of the road, or when, it was seen, or whether it had ear-tags, or a cub on its back, or if it was big or small, or in good or bad condition.

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Members of the Varroville Rural Fire Service found a young female sheltering in a tiny tree on the edge of the fire front.

She was only a year old and in beautiful condition and was one of the easiest catches that we've had - we only had to bend the sapling over and slide her into the bag.

She was soon fitted out with fire service-coloured eartags (yellow and orange) and sent on her way; but not before the fire unit exercised their naming rights to call her Varrowville.

Not so lucky was another young female who was killed by dogs this weekend near the Boxvale Track at Mittagong.

Les and Bonnie Morris who have lived on their property for 50 years said that they'd never seen a koala there before.

When Robert gave his famous impersonation of a koala bellowing, they agreed, however, that they'd been hearing similar noises over the past month.

If you want to hear a real version of the bellow ring 4620 3200.

To report a sighting call the UWS koala pager on 9962 9996.

□ STEVE WARD and

Wild adventures of Martine

IN October 1998 a motor cyclist found an 18 month old female koala running up Wedderburn Road just south of the Georges River causeway.

The youngster was trapped by the steep, rock cutting on one side of the road and a steep drop into the gully on opposite side.

Fearing that the koala would be hit by motorists coming down the twisty road, the motor cyclist scooped it up into his sports bag and called us.

We ear-tagged her (now named Martine) and released her into the same gully beside

koala crossing the road just north of the causeway, we took a group of students out to methodically survey the area, searching for scratch marks on the trees and fresh faecal pellets on the ground.

It took us about two hours to locate the koala which turned out to be Martine, complete with new cub on her back.

Since that time, we have found, ear-tagged and radio-collared a large male named Nathan and an old female Elle in the same area.

In all the time that we have been radio-tracking Elle and

Nathan, however, we've seen no sign of Martine and we feared that she may have died or been driven off by Elle.

To our great joy, however, we received a call recently from Peter Scott to say that he had spotted a koala with Martine's ear tag.

She and a new cub were back on the road where we first caught her, trapped again by the steep cutting.

With great difficulty, she had eventually climbed the rock face and disappeared into the bush.

Meanwhile, other motorists had stopped and were regulating traffic.

So we now know that there are two breeding females - one cub and at least one resident male in the gorge area.

For the next few months they are likely to be regularly crossing the road and could easily get trapped in the same way as Martine.

So we ask motorists to be especially careful, not only to avoid koalas but also to avoid hitting cars stopped because of koalas.

Remember that our UWS koala hotline is 9962 9996 and that it is a 24-hour pager.

By Steven Ward and Robert Close



the road.

A year later we received a call to say that a koala was running up the same segment of road.

On investigation, we verified that it was Martine, now full grown and healthy.

Then in October 2000, after receiving several reports of a

More koalas move towards the gorge

WE had two interesting responses from our column last week.

The first was from George Boldison, who stopped traffic at 10am one morning on the Appin-Bulli Road to allow a large koala to cross from south to north.

The location was where Steve, our tagged male koala, was killed by a car last month near the Kings Fall bridge over the Georges River.

These sightings coincide with our feeling that koalas are dispersing along the Georges River gorge.

The other call was from a member of the Varroville fire unit which discovered a young female (now named Varroville) in Ingleburn bushland.

He wanted to know whether we'd taken a photograph of Varroville because he wanted to mount a picture of her in the Unit's headquarters.

We directed him to Ron Taylor from the Fire Service whose daughter, Angela, had filmed us during the weighing, measuring



and ear-tagging.

Angela is no stranger to koalas, completing an honours degree at Southern Cross University on koala ecology.

Angela filmed while Tim Carroll, from the Fire Service, held the young koala and Robert did the processing.

The way the animal is held is crucial to the success of the process.

Held too loose, the koala will wriggle and bite; held too tight, it will panic and stress-out.

Tim's handling was perfect and young Varroville seemed quite relaxed.

Maybe it was the reassuring colours of Tim's fire-protection gear that helped.

On the other side of Campbelltown, Lynn took Julie Simpson and her class into the bush

near their school, St Helens Park Primary.

The children had just watched our video and were all fired up for the real-life experience of radio-tracking Nathan in nearby Spring Creek.

They found him relaxing in full view, looking down from an uncharacteristically low tree.

Despite the excited chorus from the children, Nathan peered down at them with confident calm, and gave the children a great morning.

However, their enjoyment was dampened by seeing the amount of rubbish, chiefly from building sites on Fullerton Crescent, that spoiled Nathan's territory.

Lynn was impressed by the clarity and depth of the students' questions and could see that they had a genuine concern for the bush and the koalas.

She feels sure that 30 additional keen pairs of eyes will now be on the look-out for koalas and ready to call our UWS koala hotline 9962 9996.

**By Steven Ward
and Robert Close**

That number again 9962 9996

OUR koala pager has been running hot recently with reports from all over the region.

First we had a report that a young male koala was in a park beside Woodlands Road Primary School.

Lynn, with the assistance of local resident Alan Ray and NPA stalwarts Beth and Rob Michie, soon had the youngster bagged, tagged, named (Ricky after Alan's son) and released in nearby bushland at the head of Spring Creek.

It was interesting that we received four separate calls about Ricky but only one came over the koala hotline.

Clearly we still need to publicise our work and the pager number more widely.

It was disturbing that one of the callers (to WIRES) reported that children were throwing stones at Ricky.

What is this urge for children to attack our wildlife?

If these same children had seen Ricky being weighed and measured, they could not have

MACA
23/10/02



resisted patting him.

As parents and educators, it is clear that we still have a long way to go to instil in our youngsters (and unfortunately in many of our oldsters) an appreciation of our superb bushland.

However the appreciation of local koalas is high at Westcliffe Colliery on the Appin-Bulli Road.

We received several calls about an animal seen near the Colliery road and, on inspection, found a young male perched in a singed Stringybark.

Wanting to eartag and inspect him, we climbed the tree and commenced flagging.

While we worked, however, several coal trucks stopped and the drivers questioned us to

ensure that we were qualified to undertake the capture and that we would not harm him.

The youngster, however, climbed out onto a dead limb that looked decidedly perilous.

He then commenced to wail, making a noise rather like a mixture of a baby's cry and a foal's whinny.

Our catching protocols forbid us to continue with a capture attempt if the koala is in a dangerous position or if it cries and the capture cannot be completed quickly.

So on both counts we had to pull back.

He continued to cry for at least half an hour while we packed up.

With lots of coal-truck drivers on the lookout for him, we hope that we'll see him again.

Don't forget our koala hotline number 9962 9996.

We'd be grateful if local shop-owners, service station owners or clubs and associations could post notices advertising the number.

■ By Steven Ward
and Rob Close

Mystery of koalas' fire escape



A MONG the many things we've still to learn about koalas is how they respond to advancing fire.

Do they merely climb higher in their tree, move to a higher tree, seek shelter on the ground or run before the fire?

The survival of so many of our Campbelltown koalas in the ferocious Christmas fires of 2001 makes us suspect that they have some special strategy.

In last week's fire that burnt bushland near Wedderburn causeway, our radio-collared koalas Nathan and Ellen again survived.

Lynn, found that one of the group was Nathan but Elle was further down the gorge.

We suspect, then, that the others were the uncollared Martine and her latest cub.

Fortunately the fire did not drive them out of the bushland.

We have noticed that koalas often appear at the bushland/housing border after fires; presumably because the animals' normal areas have been burnt or because they like to eat from trees in well-watered gardens and local parks.

Such places may be important as fire refuges for tree-dwelling animals.

We have also noticed that koalas often move back into burnt areas soon after the fire.

For example, we were called out to Wedderburn causeway where a koala had been seen in the burnt area.

Our spotlights soon picked out the reflection of animal's eyes as it browsed unconcernedly on unburnt leaves not five metres from the busy road.

The tree's lower limbs had been scorched and the understorey was burnt but the untagged koala seemed in fine shape. How had he escaped?

Research conducted in

the Piliga recently could give us a clue. In heat-wave conditions, radio-collared koalas in this area were found sheltering in rocky caves.

Such caves are found in the cliff-lines and gullies of the Georges River where our koalas are most commonly seen.

Perhaps that shelter protects them.

We are keen to learn more about effects of fire on koalas and so remind people to ring the UWS hotline on 9962 9996 to report any sightings.

We expect to see koalas in gardens in the Airds - St Helens Park region near the recently burned sites.

At 11kgs, Alan's the top koala boy



LAST week love was in the air, 10 metres high in fact, when Barbara Stitts of Minto Heights called in to report four koalas near her front gate.

The group consisted of a female and a large young in one tree and two males in adjacent trees.

Closest to the female was an old male whose ear-tags identified him as Alan, last caught close by on March 25,

11.1kg, a weight that indicates he's the top boy in the area.

We had to catch the second male before we could see that he, too, had ear-tags.

Being a dull purple, these tags blended well into the hairy ears and were virtually invisible from the ground.

The male was Kent whom readers will remember as being the son of Lyn, sometime resident of Kentlyn Primary School.

Kent left his mother late in 2000 and was last seen in 2001 near the northern end of Georges River Road.

He's obviously growing in size and confidence but at only 9kg is unlikely to topple Alan for a year or so.

Catching the foursome was not easy.

With the help of Mick and Tom Fairs and their friend Chris, we first tackled Alan, who, like most old males, confidently ignored the

waving flag.

We then had to resort to a limited-slip loop which slides over the head but tightens only so far.

Even then, he was not a pushover.

Fortunately Kent responded to the flag like Sunline coming out of the barriers and was soon in the bag.

Next we turned to the untagged female (named Xena by Barbara).

For this catch we had to have two flaggers in the trees and Xena, as befitting a warrior princess, did not come easily, leaping from limb to limb with great ease.

From the degree of wear on her teeth, Xena appeared to be quite old, probably eight years.

Her daughter, (named Barbara), after some initial misgivings, eventually responded to the flag and leapt the

last two metres to the ground.

Such a leap is nothing to a young koala.

She weighed in at 2.5kg and was in beautiful condition.

We'd like to follow the progress of these four, so Minto Heights residents should keep their eyes peeled and call the UWS koala pager number 9962 9996 for any sightings.

By Steven Ward and Robert Close

Great escape by Koala Houdini

LAST week we reported that young Kent, the koala from Kentlyn, had turned up in a cluster of four koalas at Minto Heights.

Kent, in fact, had been wandering around the garden of Barbara Stitts for several days before that and had made us look rather foolish.

That's not bad for an animal supposed to be of little brain.

The saga began when Kent was first spotted by Barbara in a tree that was too difficult to attempt a capture.

We then decided to use our fabulous trap that is built like a swimming pool fence but made of lightweight aluminium.

The bars are 85mm apart and each segment can be easily disassembled.

An opening in the fence leads to a box-trap which has a door that closes behind the animal once it enters.

The fence is erected around the tree and the koala eventually descends, encounters the fence and wanders



around it until it meets the trap's entrance, enters and triggers the trapdoor.

Unfortunately, after the first trapping night, both the tree and the trap were empty and Kent was laughing in a nearby tree.

Undaunted, we moved the trap, assuming that Kent must have leaped over the fence from a high point on the trunk.

This time, however, Barbara, from her kitchen window, noticed Kent descending.

Unfortunately, she could not actually see the trap.

What she could see, however, was Kent bounding away from the trap within seconds of reaching the ground.

So when we finally

caught Kent last week, by hand, we decided to test his escape method.

Fortunately the trap was still erected, so we took Kent and released him inside the trap-fence.

Without pausing, Kent approached the fence turned his head sideways and squeezed it through between the bars, then slid through one shoulder and then the next.

All it took was a wriggle of the famous koala tummy and he was off: no effort at all.

So it's back to the drawing board for our trap.

The escapade has taught us yet another lesson - that koalas are not as simple as some people think.

Kent had obviously worked out how to escape the trap on the first night, then clearly remembered the method on the second.

No doubt we'll hear from Kent again: remember to call us on the UWS hotline 9962 9996 any time if you sight a koala.

By Steven Ward and Robert Close

Koalas come to backyards

WE predicted recently that koalas would be forced out of their normal haunts by the fires and drought and appear in unusual places like backyards.

This prediction has proved correct and has given us more information about the distribution of breeding females.

Firstly, Kieren Griffen spotted a young, mature female beside Amanda's home-range near Peter Meadows Road (motorists beware).

In true Irish spirit, he named her Kathleen.

Immediately south of Kathleen's area, we have Lyn's home-range at Kentlyn and then Shirley's area south of Darling Road.

Both these females have large cubs.

Next to Shirley lives Irene but, until last week, we had seen her only once, two years ago.

Wendy and Mick Fares spotted her again last week, this time right in the middle of Shirley's gully.

On capture, we found that Irene was at least six-years-old and had a 500 gram cub on her back, which we named Janice after our UWS Vice-Chancellor, Jan Reid.

We shall not say why.

We suspect that Irene was bringing Janice into Shirley's gully because the additional moisture in the gully would make the eucalypt leaves more palatable.

It may be a brave move by Irene as Shirley outweighs her by 2kg.

We next heard from Tracey Buckley from Airds, our first call from this suburb in two years.

She reported that a female and cub were in



a tree almost at her back door.

Tracey's eight-year-old daughter, Chloey, had spent an exciting day watching the cub practising his climbing.

When we arrived, the mother responded immediately to the flag, galloping down the tree and into our waiting arms.

The cub, however, had other ideas and largely ignored the flag.

When he did respond, he climbed down only to the next fork and then scampered up the adjacent branch.

Eventually we called off the catch attempt and left him in the tree-tops.

When we examined the mother, we found her to be quite old.

She presumably occupies the area immediately south of Irene's, between the houses at Airds and the Georges River.

Named Chloey by Tracey, we released her back into the tree with the cub.

Hopefully we'll see the cub again so that we can eartag him before he leaves Chloey.

Consequently we ask people in Airds to keep a special watch-out and call us on 9962 9996 if they spot the koala and cub.

**By Steven Ward
and Robert Close**

Koalas can be difficult to catch

A BYSTANDER watching Steven climbing a tree to complete one of our recent koala catches remarked that, from reading past Mac's columns, he'd developed the mistaken impression that catching koalas was easy.

In fact the catches can often be very difficult.

Sometimes it takes us an hour or so just to get into a suitable position in the tree.

Consequently, we often won't attempt a catch and, when we have to change a radio-collar, we'll wait until the koala is in a perfect tree for a capture.



Nathan, who lives in Spring Creek and ranges from Wedderburn Gorge to St Helens Park is three months overdue for a collar change and we are yet to find him in a suitable tree.

Fortunately we can still find him from a distance

of about 1km, depending on the terrain between his transmitter and our receiver.

Things are getting desperate, however, and Robert is out every second morning tracking him.

But he always chooses very tall trees with numerous escape routes.

In the past week, Nathan has moved from Fullerton Crescent to Ironside Drive, St Helens Park, down to Wedderburn causeway and back to Ironside Drive.

So if you see Robert's red Ag-bike parked somewhere in that area, you'll know Nathan is nearby.

Another male that we'd been radio-tracking was Jacob who roamed over 130 hectares in the Minto Heights/Kentlyn area.

His signal, however, went silent in October 1998 when his batteries were still new.

Despite our searching, we never saw him again until last weekend when Kieren Griffen spotted him in Waratah Road, Kentlyn.

Jacob was caught first as a 9.8kg adult in September 1997. He weighed 10.3kg at his collar change in March 1998.

He would have been at least six-years-old then, so

now he must be over 10-years-old.

Unfortunately, Jacob's tree was too difficult for a catch so we still don't know what was the trouble with his radio-collar; sometimes the males will bite the aerials off during fighting.

Although we could see his eartags from the ground, we could not be sure that his collar was still on.

We ask people in his area to call us on 9962 9996 if they see him; we'd like to remove the collar and check his condition.

By Steven Ward and Robert Close

The elusive Nathan makes his getaway

LAST week, at last, we found Nathan – our Spring Creek radio-collared koala – in a tree suitable for a catch.

Normally we try to flag the 10kg biting, scratching koala down to the ground where he's much easier to handle.

On this occasion, however, we had to grab him in the tree because there were too many escape routes.

Unfortunately, when the catcher is roped on to the tree several metres high and the koala descends on the opposite side of the branch, it is difficult to manhandle the animal into a bag.

So Nathan was able to force himself past the catcher and on to a distant branch where he totally ignored the flag and forced us to abort the attempt.



Next day his radio signal was dead.

Either the batteries are now flat or we damaged the aerial during the capture attempt.

We now must rely on St Helens Park residents to find him for us so that we can replace his collar.

Nathan is often seen near Ironside Drive and Fullerton Crescent and roams beside Spring Creek down to the Wedderburn causeway on the Georges River.

In retrospect, we

realise that we should have used a loop to catch Nathan.

We normally avoid this technique because there is the chance of the koala jumping with the loop around its neck or winding the rope around a distant branch.

However, when the koala is close enough to touch or when there are few intervening branches it is safe to use the loop.

We used this technique at Cameron Place, St Helens Park where Trish Smith had found a tagged koala.

At first we thought that the koala was Will, first caught in 1995.

Closer examination of our records, however, showed that he was Alex, previously caught two years ago as a youngster at the Wedderburn causeway

and spotted six months ago in nearby Moncrief Reserve.

Alex weighed in at 9kg and is still too small to threaten Nathan.

We also used the loop technique at Victoria Road, Wedderburn, at 11.30pm last Sunday.

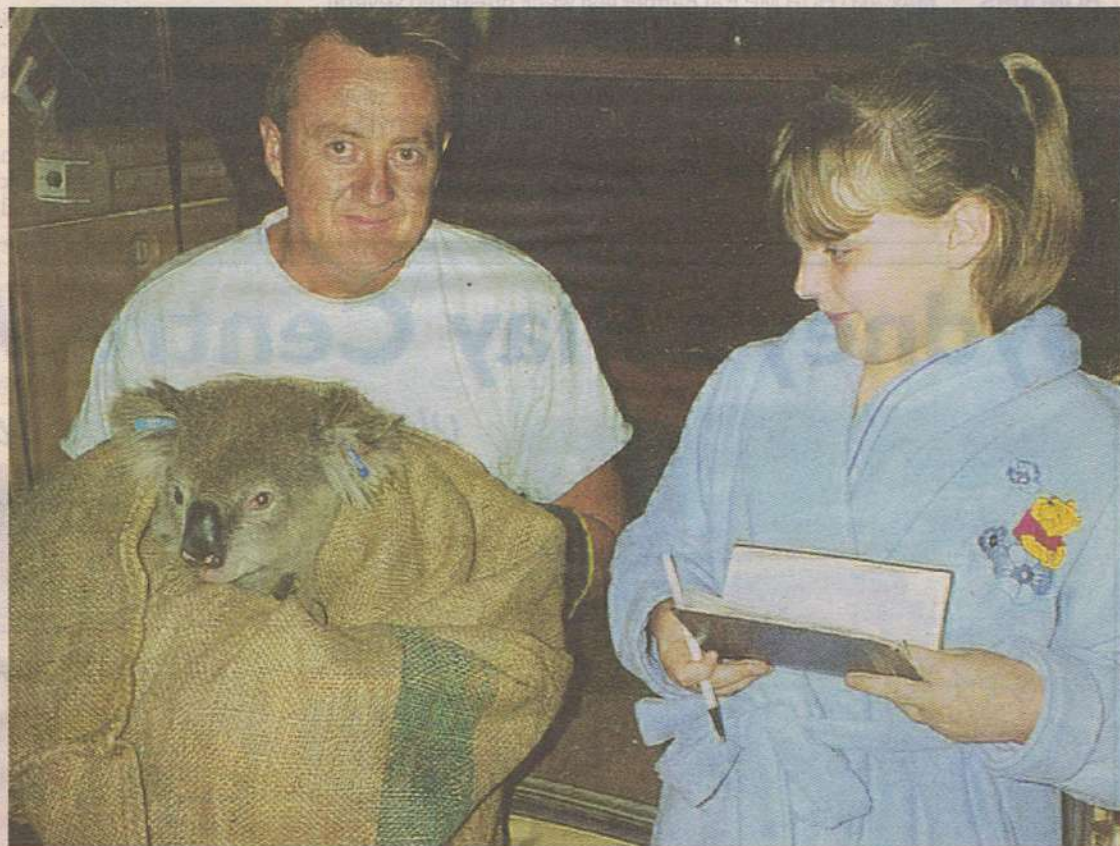
Here the Earnshaws found, in their front garden, a young male which they named Ernie.

We caught Ernie by flashlight and the Earnshaws helped with the capture, handling and tagging.

Young Renee Earnshaw certainly had a good story for news at school on Monday.

Remember our UWS koala pager number 9962 9996.

By Steven Ward and Robert Close



CAPTURED . . . Ernie the koala with his finders. Mr Earnshaw and his daughter Renee

Martine and cub back at Wedderburn

KEITH Longhurst and Julie Shepard first recorded a koala in Wedderburn Gorge in September 1986.

Several other sightings were recorded over the years – including Roger who was killed by a car, taxidermied by Roger Carrass and then served in several protest marches in the campaign to stop the Holsworthy Airport. He has since retired to Robert's office.

However, it was not until 2000 that the gorge was proven to be a breeding site by Martine, who appeared with a cub.

In the past few weeks, however, we've had several reports of mothers and cubs.

Our youngest spotter yet, Byron Wosniak aged only three, sighted a pair in a tree close to the road 100 metres south of the causeway.

This was a great effort as he spotted them from a moving car.

On arrival we recognised the mother as Martine. The cub almost ready to leave its mother.

We were keen to catch and tag the youngster before the pair separate but it was a difficult catch, with the animals 16 metres high on a slope so steep that even our catchers on the ground had to wear safety ropes.

With the cub on her back, Martine forced us to abort the catch by casually jumping a metre to safety in a tall, dead tree that we were unable to climb.

While we were climbing, several people stopped to watch and reported that



they'd seen the pair in previous days walking along the road.

The koalas became caught between the steep drop on one side and the rock-face on the other causing motorists to stop traffic to allow the pair to reach safety.

The following day, ace spotter Lou Melham noticed the pair a little further south but we were unable to get a catching team together.

The day after that, and only 100 metres up the northern side from the causeway, we found our radio-collared Elle.

Then the day after that, Julie Wasson reported yet another female and young a further 300 metres up the road towards Campbelltown.

Neither of these two were eartagged. Unfortunately this is still the case because, yet again, we found the tree too big and branchy to attempt a catch.

Aside from the three untagged animals, we are also searching for Nathan and another untagged male.

So we ask people going through the gorge to watch out.

By Steven Ward and Robert Close

The Mac

Newman returns to feast at Kentlyn property

DOUg Norris was disappointed, yet again, this week to discover that the koala his family found on their Kentlyn property was already eartagged.

It was Newman who was browsing in the backyard by day and bellowing by night.

Doug's family has also been visited by June, Shirley's cub from last year.

Shirley's latest cub, Michele, is still with her and the pair delighted a

tracking and found the mother and cub at Shirley's favourite gully, beside Georges River Road.

A night call came from Hodgsons Close, Wedderburn, where an untaged koala was sheltering in a fire-blackened Peppermint tree.

The tree was sprouting epicormic growth, which develops from buds that arise beneath the bark of the burnt trunk.

Koalas relish this fresh growth but it makes capturing the koalas very difficult, especially at night, as they disappear so easily into the dense foliage. Once again we had to give up the attempt.

Some observers wonder whether we are unduly stressing the animals.

We were tackled on this score recently by an onlooker who was watching us attempt to catch Martine in Wedderburn gorge.

We responded by pointing to Shirley's amazing record.

We first ear-tagged her in September 1993 and have radio-tracked her for much of the time since then.

This includes a yearly capture of her and her cub, and regular visits by the radio-tracker.

Despite this intrusion, Shirley maintains glowing good health and has only failed to wean one cub.

That cub, we fear, was

lost to a dog in an encounter that coincided with an injury to Shirley's jaw that left permanent damage.

The other koalas that we have tracked for many years seem similarly untroubled.

Our research methods are not damaging their daily lives.

On the other hand, our research findings have provided reliable information about koala distributions, movements,

reproductive rates, food trees and longevity.

We hope, too, that our work has stimulated interest in koalas in the community and the marvellous but fragile bushland that lies at our back door.

It is community support from people calling in to report koalas that has made our research possible. Remember the koala hotline 9962 9996.

By Steven Ward and Robert Close



group of students from the Siemens Science School who were at UWS Campbelltown last week.

The students braved the rain to go radio-

Campbelltown Macarthur Advertiser, Wednesday, December 25, 2002

Note:

No column published on this date

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, January 1, 2003

It's time for the cubs to leave nest

A few days ago Gary White called to report a small, unhappy-looking koala near the Darling Road fire-trail at Kentlyn.

Gary had first called us several years ago to report a male koala (Gary) who was to feature in several Mac columns.

This koala was later shot in the rump but a veterinary inspection showed that he also had a lung tumour.

We suspect that the illness led to him being low enough in the tree to be spotted by the moron that shot him.

Gary White's latest find, however, turned out to be Shirley's cub, Michele.

Michele was mentioned in a column late last year when we reported that students from the Siemens Science School at UWS had seen her together with her mother in their gully beside the Georges River Road.

On the latest occasion, however, Shirley was nowhere to be seen, so we used the radio-tracker to discover that she and the cub were now over 300 metres apart.

Clearly the time had come for the cub to leave and strike out on her own.

Michele is now one year old and separation from her mother is expected at this time. Never-the-less, the cub appeared very forlorn and looked as though she was sorely missing her Mum.

Other young cubs are also likely to be on the move all along the Georges River from Long Point to Appin.



So we ask people to drive with special care along black spots such as Wedderburn Road, Georges River Road and Peter Meadows Road.

We also ask residents to tie up their dogs at night and investigate any unusual barking because the youngsters are very vulnerable to attack.

Because of the drought they are likely to be in poor condition which will make them even more at risk.

Interestingly, Robert was writing these words at 10.30pm on a Thursday when Graham Flegg called to say that and his daughter had spotted a cub crossing Wedderburn Road just 50 metres north of the Causeway.

Recent readers of this column will remember that there are at least two cubs in the Gorge at present so we can expect some more sightings.

Neither of these two cubs have ear-tags so we would like to capture them. We would be grateful, therefore, if bushland residents would keep a copy of our pager number 02 9962 9996 in their cars just in case.

By Robert Close and Steven Ward

Kevin loses his marbles in Kentlyn

When released the old fellow at the base of a suitable grey gum in the Casey family's protected garden, which should have been a koala haven in a dry and burnt environment.

The old koala had other ideas, however, wandering off down the drive and then turning into the bush-lined road.

Ignoring the bush, the old boy kept plodding along the road with a curious gait, perhaps an old injury, in which his left hind-leg kicked slightly outwards and upwards between steps.

The overall effect was very sad; rather like seeing an old, battered cowboy riding off into the sunset.

Fearing for the koala's safety, Robert returned him to the garden, physically placing him in a well-watered tree.

The koala immediately tucked into the fresh, succulent leaves and we hoped that he would stay in this sanctuary.

But, alas, next morning he was gone.

His ear-tags identified him as Kevin, whose location was reported to us last week by Shane Collier from the Kentlyn Rural Fire Service.

When Robert investigated, he found Kevin in a burnt patch of bush only three metres high in a small she-oak.

Kevin made no attempt to escape, an indication that all was not well. Moreover, his coat had a coarse, brown appearance, rather than the soft, ashy-grey colour that signifies good health.

Being Saturday evening, no vets were



him overnight in a small enclosure for observation.

Kevin's vision seemed fine; he ate heartily from the proffered Eucalyptus nicholli, drank water from a bowl, climbed and walked without restriction and produced normal faecal pellets.

Consequently Robert decided to release him in the Casey's garden, which was not far from his capture-point.

Kevin has had a long history with us as we first captured him in Kentlyn in October 1995.

He was at least three-years-old then so must now be 10.

We guess that Kevin is simply getting old and "losing his marbles".

Old age comes to us all and must be faced by koalas too.

In the days before white settlement old koalas would have died from attack by dingoes or hunters.

Today, domestic dogs have replaced dingoes, and cars have replaced the hunters.

We ask residents in the Old Kent Road/Smiths Road, Kentlyn, to watch out for Kevin and investigate any unusual dog behaviour. Remember our UWS number 9962 9996

Tim kicks Kevin out of his home

LAST week we described the decline of Kevin and we surmised that he'd been kicked out of his old haunts near Coral Avenue, Kentlyn, by a younger, fitter male.

Our suspicions were supported last week when Dianne and Colin Elliott spotted two koalas in one of Kevin's favourite trees near Coral Avenue.

One koala, presumably the dominant male, was in the main fork of the tree, while the other was cornered in a slender limb above it.

On the ground beneath were tufts of



koala fur.

We attempted to capture both koalas to check for eartags and health but as soon as we flagged the smaller animal it began bleating piteously, making a noise rather like a baby crying.

We believe that this cry means "leave me alone, I'm only a wimp

and am no threat to you." So we ceased our pursuit and concentrated on the dominant koala.

We soon had him in the bag but not before he'd bitten Lynn, a vital member of our team, on the finger.

Fortunately she was wearing gloves but the bite was still sufficient to break the skin.

The male turned out to be Tim whose picture appeared in the *Advertiser* back in August 2000 after we'd caught him in a Cocos Palm in a backyard in Ruse.

There was plenty of other koala activity over Christmas/New Year.

Two simultaneous calls from Airds reported different animals. Chloey and her cub near Hazeldean Way and an unknown koala 1.5km away, near Samuel Place.

Then Kieran Griffin reported a koala near Peter Meadows Road.

When we caught her (now named Kiera), we found that she had a tiny pink baby in the pouch. About 3cm long, it would have been 2-3 weeks old. Kiera was then spotted by Michael Paul a few days later crossing Peter Meadows Road.

Michael also located another female in the same area beside Peter

Meadows Creek. So we ask motorists to be specially alert in this area.

Lastly, a call came in from the northern end of Georges River Road where a healthy-looking animal was in a stringy bark in Ken Woollard's front garden.

Ken planted this tree 27 years ago and it was his first sighting of a koala in the district.

We predict that it won't be the last.

Remember our UWS koala hotline number 9962 9996 and best wishes for 2003.

By Robert Chase and Steven Ward

Species at risk needs help

IN last week's column we reported that Michael Paul had found two koalas near Peter Meadows Creek at Kentlyn. Michael is enrolled in a Graduate Diploma in Ornithology (bird studies) at Charles Sturt University and the creek and surrounds is the home for his study-group of black-chinned honey eaters.

This species is distinguished from other honey eaters by its vivid blue eye crescents. It feeds in the tree tops and works in communal groups that share the duties of raising chicks.

Although found in small numbers across a wide area of eastern Australia, the species is declining in numbers and its survival may depend on our understanding its ecological requirements and protecting the areas that have those features.



Peter Meadows Creek has the necessary features and Michael is setting up a long term study to discover what the features are.

Like so many special bushland areas of Campbelltown, however, this area is faced with a number of pressures from human expansion.

Firstly there is the Georges River Parkway, a road that may be developed to move traffic from Appin to Liverpool in the area between housing and the Georges River.

Then there is the Edgelands area, which comprises the land between the proposed Parkway and the existing houses that line the eastern side of Hansens Road.

This area may be rezoned for housing development.

It is possibly no coincidence that the area is also very important for koalas. We have at least two breeding females, Amanda and Keira, in the area.

Moreover, the area is very beautiful and much appreciated by bush walkers who frequently use the paths.

Michael first noticed a koala in his study site when he noticed the honey-eaters plucking hairs from Keira's coat.

The birds use the soft hairs for building their fragile nests which are suspended from the

drooping outer foliage of the eucalypts.

Elsewhere we've noticed that birds will sometimes mob a koala apparently thinking that it's a predator. This mobbing does not happen, however, in places where koalas have established their home-ranges.

So it's a useful sign that the koala is moving through a non-breeding area.

We expect that Michael will get to know Keira and Amanda and friends quite intimately over the next few years.

His study demonstrates the great resource we have in our local bushland and we look forward to working closely with him. If you see a koala, remember our UWS koala hotline 9962 9996.

**By Robert Close
and Steven Ward**

Ageing Hugh expelled from colony

WHEN Julie Wasson recently reported a young koala on the Campbelltown side of the Wedderburn Causeway, it was her fifth sighting, putting her on par with ace spotter Lou Melham.

We weren't surprised, then, to receive a call last week from Julie reporting another sighting near Pheasants Road at Wedderburn.

When Lynn arrived she found both Julie and Lou in attendance and introduced them.

It turned out that they lived on neighbouring properties. In fact Lou had spotted the koala first but we'll give them

equal credit. The koala, Hugh, was first caught in Hodgson Close (1km SE) in July 2001.

At that time he had cataracts in both eyes and, although in otherwise good condition, we guessed that he had been expelled from breeding areas by younger, fitter

males. Today Hugh appears to be in poor shape, with a brown, lustreless coat. He is the third old male who has "retired" in this area and the pattern has always been similar.

The first male, 'Old Boy', was our earliest radio-collared koala, way back in 1990. He roamed around Pheasants Road for six months then one day moved 3km north into the Army Range where he stayed for another six months before disappearing, probably to dogs, along with his radio-collar.

The second old male was Martin who first appeared in Pheasants

Road, then a few months later in Aberfoyle Road, then finally in Wedderburn Road near the fire station where he was hit by a car, though not damaged severely.

After veterinary advice, he was euthanased because of his poor condition and cataracts. His prepared skull is now in our collection and it shows gum disease and extensive wear on his teeth.

Martin would have had to chew twice as much as a young male to receive the same nutrition.

This situation raises the interesting question of whether we should intervene in a koala's life.

All three old koalas had lived on for a year or so after being forced out of the breeding areas.

Our attitude is that, unless the animal is obviously suffering, we should leave it in the wild.

In Martin's case we finally intervened and in another case, when Molly broke her femur, we sent her to a WIRES carer for rehabilitation. She was eventually returned successfully to the wild. Don't forget our UWS pager 9962 9996.

By Robert Close and Steven Ward



Cockatoo shooter taken to task

MORE and more people around Campbelltown are discovering the many tracks that run through the bush within easy walking distance of suburban housing.

Besides the scenery, a great attraction is the bird-life which includes fascinating and rare species such as the black-chinned honey eater that we discussed in a recent column.

However a recent report shows that there are people who don't appreciate this marvellous resource.

The report came from bush walkers who were enjoying the sight of yellow-tailed black



cockatoos flying overhead near Coral Road, Ruse.

As they watched, a shot rang out and a cockatoo fell from a nearby tree.

Horror-struck, the walkers retrieved the beautiful, injured bird but were unable to save it.

The bush walkers were unable to locate

the shooter and police were notified, but to no avail.

Let's hope the villain reads this column and so comes to understand that what he has done is totally soulless and has earned him the scorn and disgust of the community.

In fact, we have two species of black cockatoo in the Campbelltown area.

In addition to the yellow-tailed black, we have the glossy black.

The latter is a vulnerable species that we discussed in a column in June 1999.

We were thrilled to see a pair recently at St Helens Park, feeding on the Castuarinas (she-

oaks) that they rely on for their food.

We used to have a third species, the red-tailed black cockatoo, but this species has disappeared from the region since white settlement.

If we are to prevent the glossy black cockatoo from also disappearing, we must protect both the birds and their habitat.

I wonder whether the killer of the yellow-tailed black could tell the difference between a yellow tail and a glossy black.

Let's hope that he hasn't already contributed to the decline of the latter species.

Unfortunately, the area where the parrot died is also in the home-range of our koalas Amanda and Tim.

If the shooter is callous enough to shoot a parrot then he's probably capable of shooting a koala.

Hopefully however the incident was isolated and the culprit, like the Ancient Mariner who killed an albatross, has realised the enormity of his crime.

Don't forget our UWS koala pager number 02 9962 9996.

**By Steven Ward
and Robert Close**

Koalas out and about

TO the great joy of a new group of Kentlyn primary students, our radio-collared koala, Lyn, was back in their school grounds for the start of the teaching year.

We first captured her there in February 1996.

Several of our other well-known koalas have also revealed themselves to local residents in the past few weeks.

Further south along Georges River Road, our old favourite Shirley was spotted by passers-by only 100 metres from where we caught her first in September 1993.

Shirley had crossed the road from the sandstone woodland on the river side of the road, where she spends most of her time, to visit a small, weed-infested patch of Cumberland Plain woodland.

She makes the crossing at regular intervals to visit some red gums that don't grow in sandstone soils.

We suspect that the redgums must give her something missing in her usual diet of greygum and



stringybark.

Then, further north along the Georges River Road, Doug Norris and family reported Newman, first caught in September 2001, who is a regular visitor to their garden.

They'd noted, however, that two koalas were bellowing in the area and, sure enough, soon spotted a second male.

Although we could not see its eartags with absolute clarity we are pretty sure that the newcomer was Brian.

Brian has an interesting history. He was captured originally after he'd crossed the electric fence to enter the Busways compound beside Smiths Creek in Airids in June 2001.

After we released him outside the fence, Brian visited John Warby Primary School, then vanished.

So we're delighted that he's survived the dangers of suburbia.

A little further north from Lyn's area, that old battler, Kevin, appeared briefly in a well-watered garden tree, while out at Aberfoyle Road, Wedderburn, Lou Melham reported that old Hugh, although still sporting an unhealthy brown coat, is hanging on.

On checking Hugh the next day, however, Lou couldn't believe his eyes.

Either Hugh had changed colour to a healthy ashy grey or he'd been replaced by a young male or maybe was entertaining a female.

We await with interest to find what Lou discovers.

Still missing, however, is Nathan.

We'd like walkers in the Spring Creek area to keep their eyes peeled for him and call us on the UWS koala pager 9962 9996.

By Robert Close and Steven Ward

Rare raptor spotted in Macarthur

AFTER we recently reported the shooting of a yellow-tailed black cockatoo at Kentlyn and also mentioned that red-tailed blacks were no longer in the district, a Wedderburn resident called to report that he'd seen red-tailed blacks near his home.

However, the rare glossy black cockatoo also has red tail panels, so there was clearly a chance of a misidentification.

Nevertheless, the caller was adamant that his birds were as large as the yellow-tails.

This is a crucial distinction because the glossies are 20 per cent smaller.

Glossies are also quieter, love she-oaks, are browner and have a more bulbous bill, while the female has yellow patches on the head rather than spots or bars.

Another response to the article came from Michael Paul, who is conducting a local study of black-chinned honey eaters.

He was seriously concerned because he'd spotted one of Australia's rarest birds of prey, a square-tailed kite, near the site of the cockatoo shooting.

Michael commented that the species is listed as vulnerable in NSW "with only a small number of sight records for the Sydney district (County of Cumberland) with most of these being in the Hawkesbury area."

"This record for Kentlyn is the first ever recording of this bird in the Campbelltown district," Michael said.

Michael suspects that he'd seen the kite in flight twice before



over the past two years, but this was the first time he'd been able to make a positive identification.

This time the bird "was perched and very trusting, allowing me to get within 15 metres of it, showing all the diagnostic field marks of an adult plumaged bird," he said.

"The whole time it was being harassed by two magpies and a satin bowerbird."

Michael is now anxious to discover if the kite is resident in Campbelltown and says that because "it has never been recorded breeding in the Sydney district it would be momentous if we discovered it nesting - and there is every possibility of that as the habitat does seem ideal for it - that is, bird-rich forest and woodland."

"It mainly feeds on nestling birds, especially those of the noisy miner (*manorina melanocephala*) which are abundant along the forest edges of the Georges River bushland."

So koala spotters, we need you now to also investigate red-tailed cockatoos and raptors.

Record the animals carefully, try to obtain a photograph and call us on the UWS hotline 9962 9996.

By Robert Close and Steven Ward

New koala discovered

A CALL from the Dixons at Minto Heights recently took us to a huge grey-gum with a koala in beautiful condition in the upper branches, clearly out of reach of a capture attempt.

We could not see eartags and it looked like a female but we could not be sure, because when males are two to four years old they are difficult to distinguish from females.

Older males develop a ridge of bone (called a sagittal crest) along the top of the skull which allows them to develop much heavier muscles that attach to the crest and the lower jaw and make their heads look considerably more massive.

The power of the bite is consequently much increased, presumably



an advantage when fighting other males.

A similar crest is seen in male gorillas.

Male koalas also develop a dark, oily patch, called a sternal gland on their white chests which produces an array of smelly compounds.

These compounds are used to communicate with other koalas but little is known about the compounds or how they are used.

Unfortunately, we were unable to see the

chest of the Dixons' koala, so its sex remains unknown.

It was clear, however, that the locality is perfect for koalas.

The grey-gums are large and plentiful.

In addition, there are numerous, thickly foliated turpentines, which are much favoured by local female koalas for shelter from the sun and predators.

We suspect that this koala has set up its home-range to include the Dixons' property, and predict that we will hear from the Dixons again soon.

How female koalas set up their home-ranges is a question of great interest to us, and one that was partly answered recently by June, a grown up daughter of Shirley, our oldest and best known female whose home-

range extends to Darling Road, Ruse.

June left her mum in late 2001 and she was spotted a few months later near Old Kent Road.

The recent report was also from Old Kent Road.

This means that she is living between the territories of her mother and Lyn at Kentlyn Primary School.

Has June established a permanent home-range or is she just hanging out on the edges of the older females' areas waiting for a vacancy?

We'd like to know, so we ask Kentlyn residents to keep an eye out for her and call the UWS koala hotline 9962 9996.

By **ROBERT CLOSE**
and **STEVEN WARD**

Shooters alarm at Kentlyn

WE RECENTLY reported that a yellow-tailed black cockatoo had been shot at Kentlyn and have now been informed about continued shooting in the area.

In addition, independent reports of the glossy black cockatoo have come in from the same area.

This species is considered to be threatened. Consequently, the effects of shooting could be extremely serious.

All native birds, mammals, reptiles and amphibians are protected and there are serious penalties for killing or capturing them.

These penalties could be fines of thousands of dollars or several months' imprisonment.

Penalties for taking threatened species



(which includes the categories endangered and vulnerable) increase dramatically.

Unfortunately, these rules are not well known in the community.

A colleague recently encountered some lads collecting water dragons near the Georges River.

These boys were unaware that possession of the lizards could land them in hot water.

They could face an on-the-spot fine of \$300-500, with the heavier penalties for a second offence.

■ On the koala front, mothers and babies have been the focus.

Shirley's daughter June turned up again near Kentlyn primary school with a three-month-old baby in the pouch.

At this age it is just beginning to grow a layer of light hair.

June is very young to be a mother and must have conceived when she had only just turned two.

We put a radio collar on her so that she can help us understand how young females set up their territories.

A series of calls to Ironside Drive, St Helens Park, reported an unmarked mother and large cub in too-large a tree to try a capture.

Searches on subsequent days led to their discovery in a tree suitable for capture.

The mother and

female (named Courtenay and Brittany by her original spotters) are the third pair that we now know to live in or near Spring Creek.

We radio-collared Courtenay to help us discover how these females interact.

While we were capturing her, another call came in from Airds, where we later found Chloe and her untagged cub.

We would have liked to catch the cub to tag it before it leaves its mother.

However, the cub was riding the wind-tossed upper branches like a buckjumper.

Remember the UWS koala hotline 9962 9996.

**- ROBERT CLOSE
and STEVEN WARD**

Glossy rescue: well done

OUR stories of glossy black cockatoos have raised some interesting accounts from readers.

The first occurred on that awful day in January when temperatures reached 43 degrees, overwhelming a young glossy black cockatoo which collapsed in a street in St Helens Park.

Pat Stanton rescued the youngster reviving it with water while it sat on his hand like a pet.

Next morning it had perked up and started calling; and to Pat's great pleasure drew loud responding calls from outside.

There in the trees of Pat's garden were the youngster's parents, obviously eager to rescue their prodigal child.

Pat then opened the door and the young cockatoo flew off to meet its parents.

This story delighted local ornithologist Michael Paul, not just because of its happy ending but also because it indicates that this rare species is breeding in the region.

Michael reports that the glossies' breeding season is generally March to August and they produce only one chick which depends on its parents for about



three months after leaving the nest.

This long dependence is necessary because it needs to learn the complex feeding drill of breaking open the she-oak seed cones which form the parrots' staple diet.

Another call took Michael out to Coral Avenue (near the site of the shooting reported

recently) where five of the rare cockatoos were feeding in the she-oaks of a resident's backyard.

Glossies depend almost exclusively on a particular species, the black she-oak, *allocasuarina littoralis*.

She-oaks (or casuarinas) look rather like pine trees with a graceful appearance, needle-like leaves and small seed cones.

Unfortunately, only on a small proportion of the black she-oaks in an area have seeds of sufficiently high nutritional quality to support the glossies.

It is vital, therefore, to discover all the places in the Campbelltown area where suitable conditions occur.

Consequently, if residents could call us whenever they see glossies feeding, this will allow Michael to construct a map of feeding areas.

He can then link the geology, soil, food quality and foraging patterns of the glossies to identify and protect their preferred feeding habitat.

Michael's phone number is 0413 125 883 or you can call us on the UWS koala hot-line 9962 9996.

Remember the glossies have red markings on their tails and are smaller than the more common yellow-tailed black.

By Steven Ward,
and Robert Close

Fertile bush the vital link

THERE'S an interesting link between the glossy black cockatoos that we discussed last week and our Campbelltown koalas.

That link is the fertile parts of the bushland that lie between the Georges River and Campbelltown housing.

These fertile areas dictate where the black she-oaks grow, and consequently, where the glossies can obtain sufficient nutrients to breed and grow.

Not surprisingly, those same fertile areas also provide nutrients for koalas (and also the black-chinned honeyeater described in a recent column).

Steven's work showed that female koalas in those fertile areas of Airds, Ruse and Kentlyn were heavier and produced young more frequently than did koalas from the sandier areas at Wedderburn.

Last week we recaptured Francesca at Wedderburn to change her radio-collar and found that her pouch was empty for the second year running.

Her last cub was Marly who left the pouch in mid 2001.

Since that time, Francesca has endured the violent fire of Christmas 2001 and the dreadful drought of 2002.

During that same period, in contrast, the Airds/Ruse/Kentlyn animals have continued to breed.

To our delight, however, Francesca was considerably heavier than the last time we weighed her, and her pouch was moist and pink, evidence that she may be in breeding condition at last.

Consistent with these observations, we discovered a large, untagged male in a nearby tree, despite the lateness in the breeding



season.

Perhaps the recent rains and the luxuriant leaf growth that followed the fires have provided sufficient nutrients to allow breeding.

Back in the fertile areas at Airds/Ruse Paul, a local resident, sighted Chloe and her untagged cub for the second time in a month.

This time we were able to capture and ear-tag the super active, 2kg male cub which Paul named Junior.

Chloey and Junior are relatively accessible to local residents and there is some concern that people may persecute them if their whereabouts become widely known.

The pair live in an area where trail bikers carve tracks beneath their trees, while rubbish dumpers and storm-drains despoil the understorey.

However, the attractions of the bush over-ride these blemishes and provide many residents with much pleasure.

Knowing that this bushland supports a thriving colony of koalas adds to the residents' enjoyment and appreciation of the bush and increases their resolve to protect it.

We encourage residents to report koala sightings to us on the UWS koala hotline 9962 9996.

By Steven Ward
and Robert Close

Elle is back with a baby

ELLE, who was tagged in September, 1993, is one of our most interesting koalas.

She was the fifth of 85 to be tagged after she'd turned up dehydrated as a juvenile in a backyard in Ruse.

She was restored by WIRES then we released her at Wedderburn in an area recently vacated by a female that had died.

Nowadays we would not release an animal out of its familiar territory but we've learned much in the last 10 years.

Anyway, Elle knew much more than us and promptly vanished.

She turned up again last year, eight years after her release in Wedderburn Gorge, several kilometres from her release site.

We then put a radio-collar on her and have been following her movements from the top of the northern side of the gorge

along the southern side of Spring Creek and a little distance up the Georges River.

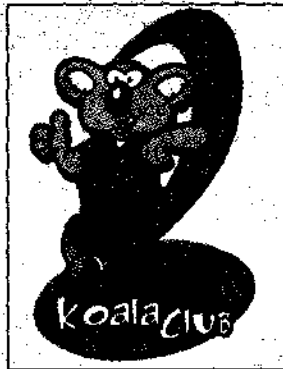
She is very difficult to radio-track, not only because the terrain and vegetation are so difficult to clamber through but also because the signal from her radio-collar bounces off the rocky cliffs and thick vegetation.

This bouncing means that the tracker will head off in one direction, only to find, after a while, that the signal is now indicating the opposite direction.

The batteries of her radio-collar need changing after about 12

months, so after that time we wait until she's in a tree small enough to allow a reasonable chance of capture.

That chance arose last week, and after some dogged resistance, we managed to capture her.



She was in excellent condition for an 11-year-old koala and her pouch was bulging with a three to four-month-old baby.

This was her first cub since 2001, and it was great to see that she's still fertile.

Recent work from Monash University has used small microphones to show that older koalas, with their worn teeth, have to chew each leaf twice as many times as younger animals.

This extra demand of effort and time will eventually limit Elle's capacity to produce cubs.

But so far so good and we'll let you know how the youngster progresses.

■ Thanks to the many people who called about glossy black cockatoos.

We're now gathering much useful information.

Remember that the red band on the tail (not yellow) is the crucial feature.

Call us on 9962 9996 for koala or glossy sightings.

By **STEVEN WARD**
and **ROBERT CLOSE**

Beware pets on the prowl

FOR the first time in many months the koala hotline did not ring last week to report a koala sighting.

That's not surprising as the koala mating season is now at an end and there has been enough rain to revive the eucalypt trees.

So the adult koalas are unlikely to be moving to places where they will be easily seen by humans.

The youngsters, however, may start to move away from their parents, although other studies have indicated that this movement usually happens in spring.

We did, however, receive a call about a dead swamp wallaby at Kentlyn.

This is the most common local wallaby and, as discussed in previous columns, is dark brown with black feet and tail and stands about a metre high.

The dead animal was a juvenile female that had teeth wounds to its thigh indicating an attack by a dog.

A large abscess on its neck suggested that the attack may have happened some time before its death.

Unfortunately, dog attacks are a constant problem for wildlife that live on the border of the city and the bush.

We know of six local koalas killed by dogs and only one of these was killed after entering a yard occupied by a dog.

This means that all the others were attacked by dogs roaming from home and consequently their deaths were preventable.

A study at Jervis Bay showed that much



has been done by dogs whose owners have been unaware of the nightly hunting by their pets.

Once again we implore dog owners to control their pets and to investigate any unusual barking.

We were particularly interested in obtaining a DNA sample from the dead swamp wallaby because UWS student and Ruse resident, Amanda Brindley, has just started her Honours project on local macropods (the name used to include both kangaroos and wallabies, literally meaning "big feet").

Amanda is especially interested in the population of wallaroos (also called hill kangaroos) that live within Mt Annan Botanic Gardens and she will conduct a DNA study using cells obtained from the faecal pellets of these animals.

Because swamp wallabies also live inside the gardens we need to clearly distinguish the DNA of both species.

Amanda is also keen to collect DNA samples from any local, road-killed macropods.

If you know of any road accidents involving macropods contact the UWS koala hotline 9962 9996.

By STEVEN WARD

Help after fire, drought, illness

16/4/03
WHEN I last saw Marly she was a year old and, with her mother Franceska, had just survived the fierce bushfires of Christmas 2001.

How they escaped the flames we can only guess.

Perhaps they had sheltered in caves or rocky clefts until the firefront had passed.

Since then, however, we'd seen nothing of her until last weekend when Lynn, our radio-tracker and record keeper, noticed her squatting on the ground in mid-afternoon, eating fallen leaves.

This is most unusual behaviour so Lynn brought her in for inspection.

Marly was grossly underweight and measured only one out of four in our condition score.

In addition, the lower half of her back was an unhealthy brown with tiny dreadlocks that indicated poor grooming.

She also lacked the biting, scratching spirit we would expect when handling a young koala.

All she could do was cry.

As it was late on Saturday we held Marly overnight in our holding room which has two tree limbs with comfortable sitting-forks and plenty of fresh gum leaves.

Next morning, almost all the leaves had been eaten and a pile of faecal pellets indicated that the gut was in good condition.

We then rang Gaylene Parker, a very experienced WIRES person who has handled our previous koala problems.

Gaylene asked us



pads, an indication of time spent on the ground.

She also wanted to know if Marly was dehydrated and explained how to check for this.

Gaylene suspected that an overattentive male koala may have forced Marly to jump out of her tree, resulting in internal injuries.

Clearly a vet's opinion was needed so we were soon in Gary Ashton's surgery at the Campbelltown Veterinary Hospital.

After a thorough inspection Gary concluded that Marly was in poor, but not critical, condition and just needed fattening up.

Gary felt that the continuing drought conditions were preventing Marly from obtaining sufficient nutrients to survive and grow.

So Marly is now surrounded by cut foliage (mostly *Eucalyptus nicholli*) and will be weighed every day so that we can plot her progress.

We'll keep you informed.

Residents at Wedderburn should keep their eyes open for other young koalas that may also be having a difficult time.

Call our UWS koala hotline: 9962 9996.

Marly's short life valuable

LAST week we told the story of finding Marly in poor condition out in Wedderburn bush and about our plans to feed her up before releasing her.

All seemed to be going well, Marly was eating vigorously. Then one afternoon we discovered her having a fit of some kind, arching backwards, waving her head to-and-fro and making a paddling motion with her feet.

After a short time, sadly, she died in Lynn's arms.

Naturally, we felt dreadful but realised that we were in fact



lucky to have found her in the bush and that her rediscovery allows us to learn more about how our koalas live and die.

For example we were able to compare her life with that of a Kentlyn female, June (Shirley's cub) who is the same age.

When we

rediscovered June last month she weighed 7.3kg, had a head length of 131mm and had a cub herself, which is now 4-5 months old.

In contrast, Marly weighed only 5.2kg, had a head length of 114mm and had an immature pouch.

Clearly the development of the two young females had been markedly different.

What could have caused this difference?

For starters, Marly faced the fires of Christmas 2001 and as a weanling would have had to survive on limited food supplies until regrowth of the eucalypt foliage.

She may never have completely surmounted

this early set-back.

Alternatively, the differences in fertility between Kentlyn and Wedderburn may be the cause.

A major finding of Steven's thesis, in fact, was that the higher fertility of Kentlyn soils was associated with Kentlyn females being heavier, breeding earlier and more often than Wedderburn females.

Another possibility was that Marly was ill or damaged.

To test this possibility, Dr Tony Ross at Elizabeth Macarthur Agricultural Institute conducted a post-mortem, assisted by Dr Gary Ashton from Campbelltown Veterinary Hospital.

Although they found that Marly was skinny, all her organs, apart from a little congestion in the lungs and a slight inflammation of the small intestine, seemed normal.

Nor were there signs of spider or snake-bite or poisoning.

Tissues were taken for lab analysis and unless these results show anything unusual we shall document Marly's death as the result of continued harsh environmental conditions.

We ask people to watch out for koalas and call the UWS hotline 9962 9996.

□ **By Robert Close and Steven Ward**

Campbelltown Macarthur Advertiser, Wednesday, April 30, 2003

Note:

No column published on this date

Local dogs killing koalas must stop

IN LAST week's *Advertiser*, Rebecca Senescall discussed the proposal, outlined in the Draft Recovery Plan for the Koala, that the National Parks and Wildlife Service will recommend to local councils that covenants be placed "on new residential developments to restrict or prohibit domestic dog ownership, supported by active enforcement".

This proposal is one of several which include:

- Frequent patrols for uncontrolled dogs in koala areas;
- Requiring that domestic dogs in or near koala habitat be restrained within koala-proof fenced enclosures;
- Providing off-leash areas away from koala areas;
- Issuing penalties for



dog owners whose dogs are known to be aggressive to koalas; ■ Education for dog owners in koala areas. Submissions will be considered on the draft before the plan becomes finalised. Because our study has been going on for some time, we are in a position to provide some details on the effects of dogs. Firstly, it must be understood that koala habitat exists all along the eastern border of Campbelltown Shire and that koalas have been sighted in those

areas from Long Point, Macquarie Fields, to Appin.

The above proposals therefore apply to a large part of the shire. So how big an effect do dogs have on our local koalas?

As last week's article outlined, we have followed 85 local koalas and five of them have been killed by dogs.

Apart from 10 or so animals that we have radio-collared, the remaining 75 animals were only ear-tagged and released.

Many of those 75 have not been seen again so they may have been taken by dogs and we will never know.

So the five known kills may be only part of the total dog toll.

We rely on members of the community to report dog attacks to us and, understandably, someone whose dog had

killed a koala may be reticent to notify us.

Of the five known kills, two were cubs taken from their mothers' backs, two were young, independent males, and one was a young, independent female.

We also have collected two non-local koalas that were killed by dogs.

One, a young adult male, from Colo Vale, entered the yard where a Rottweiler lived, while the other, from Mittagong, was brought out of the bush by a farm dog.

We shall consider the Draft Plan in greater detail next week.

In the meantime, call us for any koala sightings on 9962 9996.

By Steven Ward
and Robert Close

Taggers were ready and able to get Abel

WHEN peering up at a koala high in the foliage it's often difficult to judge its size.

So last weekend, when Robert Pocock spotted an animal in a turpentine tree near the Georges River adjacent to Airds, we thought the animal was small and would be an easy catch.

After the equipment was lugged down the cliff, using steps hewn into the sandstone by some unknown persistent and probably long-dead stone-mason, Robert Close was soon high in an adjacent tree trying to flag the animal down.

Only then did he realise that the koala was a whopper.

By then it was too late to change plans as the koala was already



scuttling down the trunk. Robert Pocock and his mother Lorraine waiting below must have had second thoughts as the large koala came closer and closer.

Fortunately, they had learned their training rules well and after the koala leapt from the tree, Robert grabbed him and pinned him by the shoulders while Lorraine manoeuvred the bag over the koala's head and massively clawed feet.

The koala was untagged, weighed in at 9.9kg and had the soft grey colouration of a healthy animal.

The high crest of bone that ran along the top of his skull indicated that this koala deserved respect.

The crest is an attachment for muscles that power the lower jaw and give their owner a bite that could snap a finger.

Fortunately his captors, somewhat protected with leather gloves, kept out of harm's way.

Robert Pocock had earned his naming rights and generously named the koala Abel after his friend whom we think may have spotted the koala a month or so ago.

On that occasion the koala's tree had too many escape routes to

allow a capture. Koala Abel was soon ear-tagged and released.

We expect that his area probably includes the slopes of the Georges River along its entire border with Airds.

One of his ladies is likely to be Chloe from near Georges River Road, and he's bound to have others in his area.

Perhaps Linda, a female that we've not spotted for a year or so, is still there too.

So we ask all the residents of Airds who walk through that particularly beautiful piece of bushland to watch out for Abel's females and call the UWS koala hotline 9962 9996 if you spot one.

By **ROBERT CLOSE**
and **STEVEN WARD**

Numbers seem to be bearing up well

GOING through our records recently in preparation for our display at Riverfest, to be held at Koshigaya Park on June 1, we counted up all the koalas we have on our records.

Over the past 13 years we have tagged 97 koalas from Minto to Bargo and, of these, we know 12 to be dead.

Even now, every second or third animal that we encounter is still untagged.

This means that our population of koalas must be quite large.

But is the population increasing?

We can't be absolutely certain because people may not have noticed or reported koalas in the Kentlyn area prior to 1990.

However, the combination of observations such as the long and fertile lives of our koalas, the extension of areas of koala sightings and the sightings of animals whose previous searches were unsuccessful indicate an increase.

If so, this population growth must lead



either to higher densities of animals and/or dispersal of young animals into previously unoccupied territories.

We are interested in both possibilities and particularly want to discover how young females encroach into the territories of older, established females.

We are currently radio-tracking one of Shirley's daughters, June, who is 2.5 years old and left her mother's territory and moved about 1km north along Georges River Road where she encountered Lyn.

Lyn is 10 years old and knows her 15ha area like the back of her paw.

We were intrigued to discover how Lyn would react to the newcomer, so our intrepid trackers

followed them almost daily.

For many days the two koalas appeared to be facing each other off on the edge of Lyn's area and were normally found about 200m apart.

One day they were in trees only 50m apart.

Then all of a sudden Lyn retreated further back into her area.

Whether she has lost ground to the young challenger, we shall have to wait and see.

Lyn is not looking as healthy as June and her worn teeth could be giving her problems.

At this stage, however, June seems content to stay with her young cub near Kentlyn Primary School.

On occasions she climbs over a 2m wire fence into an enclosure to feast on a eucalyptus nicholii.

This species, though not a local species, seems to be a great favourite.

Please report any sightings on the UWS koala hotline on 9962 9996 and come and see us at Riverfest.

By Robert Close
and Steven Ward

Tents for wombats

IT'S always sad to see dead native animals on the road but the positive side is that biologists can learn much about an area's fauna by keeping records of such sightings.

At UWS we record these observations so long as we can be sure of their accuracy.

Recently, a black buck wallaroo was killed on the freeway between the University and the Mt Annan Botanic Gardens.

He weighed close to 70kg and the collision would have severely damaged a car.

We wonder whether he had lady friends living on both sides of the freeway: high-risk love!

Honours student Amanda Brindley had a DNA sample taken from a small piece of ear to allow us to determine if his offspring survive him in the gardens.

Two reports of dead wombats came in this week, from just south of Menangle and from Rosemeadow.

These were our first local reports of wombats for some years. The last was of an animal found wandering in a dazed manner in a Wedderburn orchard with severe, fly-blown, dog-inflicted wounds to the head.

However, wombats must be relatively common east of Appin judging from the many piles of their distinctive, squarish faecal pellets along tracks across the upper catchment of O'Hares Creek.

A schoolteacher had an unnerving encounter with a wombat recently when he supervised a group of high school students on a field camp at Bendelong.

He was woken by screams and found that a wombat had entered a tent occupied by two



female students and attacked them.

Wombats, like koalas, with their sharp front incisors and powerful jaw muscles can inflict severe bites.

Fortunately the bites on this occasion were not as bad as they might have been.

Seeking an explanation for our friend, we contacted our wombat expert, Gaylene Parker.

She confirmed that hand-raised or wild wombats will bite readily and she suspects that if the wombat had been raised by hand then released it would probably have been attracted to familiar human smells.

Once inside the tent it would have panicked at the screaming and responded by biting.

Hand-raised buck kangaroos can also be aggressive and some documented attacks on female humans by male kangaroos have been associated with the victims' menstruation.

However, we've not heard of such an attack by a male wombat.

Remember our UWS koala pager number 9962 9996 and visit us at Riverfest, Koshigaya Park next Sunday, June 1.

Robert Close
Steven Ward

The thrill of spotting native animals

RIVERFEST was a great success in Koolagaya Park on Sunday.

A constant stream of people paused to look at our display of family histories of local koalas and the maps of their home ranges.

Visitors also played "spot the koalas" in photographs or tested their forensic skills by working out the age, sex and cause of death of 12 skulls obtained from local koalas that had died from sundry misadventures.

Younger children also enjoyed patting Roger, our stuffed koala that had died several years



ago after being hit by a car near Wedderburn Gorge.

We also met several people who had previously sighted koalas and reported them to us.

These included Robert Pocock who had seen koala Abel last week, not

far from where we had captured him a week or so before at Airds, and Kieron Griffin who had called us that morning from Peter Meadows Creek to report an untagged koala.

As Kieron left the area he met ornithologist Michael Paul who is studying the rare black-chinned honeyeaters in the area.

Kieron gave Michael instructions on locating the koala and as he searched Michael was delighted to discover two powerful owls perched in a nearby tree.

These are huge and magnificent birds and, like the koala and the

black-chinned honey-eater, are classified as vulnerable.

Michael, who also visited us at Riverfest, described the thrill of standing in the bush only 2km from Leumeah railway station and seeing three vulnerable species in the one place.

It is disturbing to reflect that this same area is marked as the possible site of a new road, the Georges River Pathway.

It was also disturbing to hear from Michael that, as he left the area, bike riders roared down the firetrail.

The owls and the koala did not move but

the magic of the moment was lost.

Damage to the trails and disturbance of the animals will affect their long-term survival chances.

Michael also stressed the importance of community responses to our columns about sightings of the glossy black cockatoos and the square-tailed kites which are also vulnerable species.

We ask readers to remember the UWS koala pager number 9962 9996 - add it to your mobile directory.

Steven Ward
Robert Close

Campbelltown's wildlife diversity

WE RECENTLY received a call about a wombat seen regularly in a culvert at Minto.

This important sighting was our first from this area.

Unfortunately the caller didn't leave a contact number for us to ring back and check some vital details.

Before we can make a useful entry in our wildlife database, we need an accurate location, date of the sighting, the name and contact number of the observer and an opinion as to the accuracy of the identification.

In the case of the Minto wombat, we lacked the sighting date



and details of the observation.

Because our database is likely to be used for development decisions at council level and in the Land and Environment Court, we have to be particularly careful that our information is reliable.

So we appeal to the wombat caller to ring us back and for future callers to leave us a

contact name and number so that we can check the details.

Many residents would be astounded at the variety in our list of animal species that have been accurately sighted within 10km of Campbelltown station.

On the native mammal list, besides the koala and wombat, are the swamp wallaby, wallaroo, hill kangaroo, grey kangaroo, bandicoot, pygmy brushtailed and ringtailed possums, sugar squirrel and greater gliders (like gliding possums), bush and swamp rats, antechinus (a mouse-sized marsupial predator from the same family as

the Tasian devil) and a long list of interesting bat species including the threatened large bentwing bat, eastern falsehood and the greater broad-nosed bat.

In addition, the echidna is seen regularly while, less recently, the platypus has been sighted in the Georges River.

An interesting and recent, though unverified, sighting was the spotted sandgull, a large, cat-sized marsupial predator.

There have also been tantalising reports of small wallabies that are likely to be rare and important if they can be identified.

In addition, we also

have a rich and diverse list of birds, reptiles, frogs and fish in the local area, while the invertebrate fauna is largely unreported.

Generally speaking, the gorge and tributaries of the Georges River are the keys to this richness.

It was great to see the number of people at Riverfest last week who appreciate our marvellous river and all that it provides in recreational and spiritual value.

Remember our UWS koala hotline is 9962 9996 (store it on your mobile).

By Steven Ward and Robert Chase

Female is in the bag

THE Riverside Reserve which runs along the Georges River from Kentlyn and Airds to the tip at St Helens Park includes some fine woodland on and above the steep slopes leading down to the river.

We have spent little time in the middle and southern parts of this area but have always felt that it should be suitable koala habitat.

After reports of two large males in this area, as mentioned in recent columns, Lynn Coxall and Mick Fares decided to investigate a little closer.

On reaching the edge of the cliffline, Lynn remarked that the area looked like a good place for a female koala.

Lynn should know. She's been radio-tracking our female koalas for several years now.

What impressed her about the area was the number of thickly foliated turpentine trees that the females use for shelter but don't eat, the number of grey gums that provide food and the prevalence of the pink-barked angophoras.

The last species is not known as favourite food or shelter but is found in the other female's areas and helped make the area "feel right".

No sooner had she said this than Mick pointed to a dark shape in a nearby turpentine.

Closer inspection revealed a fine, untagged female with a suspicious



bulge in the pouch.

The pair were only 8m high and could definitely be caught.

Although the koalas are often difficult to spot in a turpentine, they are relatively easy to catch because the side branches are short and provide no escape routes.

On this occasion, the biggest hazard was the slope which was so steep that the ground crew had to be secured by ropes to avoid tumbling down the cliff in the heat of the capture. Fortunately, all went well and the large female was soon "in the bag".

She was in fine condition and was named Mykala. Her baby, furred and active, was about four months old and has another two months left in the pouch.

We figure that there is sufficient area between Mykala's territory at Airds and that near the St Helens Park Tip to fit in perhaps another three or four females.

We'd like walkers to help us fill in the "empty" areas by keeping a look-out and calling us on the UWS koala hotline of 9962 9996.

By Steven Ward and Robert Close

Shirley's home has become a drain

SHIRLEY, our oldest female koala, has, since at least September 1993, lived beside a small creek that rises among houses in Ruse and crosses by pipe under Georges River Road before running down a gully into the Georges River.

Shirley spends most of her time on the river side of the road but occasionally crosses over to a small patch of woodland to feed on a number of forest red gums, a species she seems to relish. The creek, sadly, has

become a storm drain that washes nutrients from garden fertiliser, pet faeces, rubbish dumping, detergent etc into Shirley's gully. As a result, the immediate area surrounding the creek, particularly on the Ruse side of the road,

has become grossly overgrown with weeds of many kinds. Garden waste which includes clippings, seed and bulbs is clearly a major factor, with clumps of many weed types showing where each load of garden waste was originally dumped. We have been watching with anxiety as these weeds have gradually spread and smothered the natural bush in the red-gum patch, while on the river-side the spread of kikuyu grass and black-eyed susan has been

dramatic and relentless. We would love to do something about restoring this area while it is still possible. Our great hope was that a koala management plan for Campbelltown would be put in place. Such a plan would itemise actions required to maintain our koala population, and provide a program for doing so. Restoration of critical habitat such as Shirley's would certainly be high on the list of priorities for the

plan. We know that Shirley's area is an important site because she has raised almost one young per year since 1993 and only one of these, as far as we know, did not survive to weaning. We understand that a draft koala plan of management has been before Campbelltown Council for many months and we encourage the council to take prompt action with it. In the short term, fortunately, Shirley's area is likely to receive help from the Green

Corp. Campbelltown residents must help too by stopping weeds and nutrients from entering Shirley's gully. It's worth remembering that any water, wastes, oil, car wash, cigarette butts or other nutrients falling into gutters and storm drains from any suburbs north of Rosemeadow and east of the M5 freeway will ultimately run into tributaries of the Georges River. Don't forget our UWS koala hotline 9962 9996. By Steven Ward and Robert Close



Bikes hit the breeding trails

CAMPBELLTOWN residents are being asked to consider whether they want walking tracks and cycle paths through local bushland.

Campbelltown Council business papers for June 17 contain details of three options for his tracks that have been prepared by a consultant (see the council's web site www.campbelltown.nsw.gov.au).

They will be on display for 60 days.

We are particularly interested in the tracks because each option runs through known koala breeding areas.



The shortest option has two unconnected routes: the first from Macquarie Fields station to Ingleburn Reserve, the second from Leumeah station either to the Basin or Freres Crossing.

The Basin alternative crosses Myrtle Creek and the northern end of Peter

Meadows Creek before meeting the Basin Track. The Freres Crossing alternative runs from Hansens Road across Peter Meadows Creek to Waratah Road and then to Boronia Road, south-east to Freres Road and the river.

The final option also includes the first, but runs from Ingleburn Reserve to Mercedes Road then beside Myrtle Creek to Ashmead Road and along Eagleview Road to John Rider Reserve in Leumeah.

Thence the track follows Peter Meadows Creek for two kilometres to Old Kant Road then to Darling Road/Georges

River Road.

The last option will have the greatest effect on the Peter Meadow Creek and its surrounding bushland.

We've mentioned several times in this column the importance of this bushland for koalas, black-chinned honey eaters, powerful owls and square-tailed kites (to mention only the vulnerable species).

However, there are many positive aspects of the proposal and in the next two columns we will discuss both sides of the argument.

Don't forget our UWS koala hotline 9963 9996.

By Steven Ward and Robert Cross

Out on the right path

THREE golden retrievers appeared out of the bush in Francesca's home-range at Wedderburn last week, at least a kilometre from the nearest house.

These dogs were well cared for but not restrained by their owners. This incident illustrates one of the potential problems with the proposed walking paths and cycleways that we described in last week's column.

The more pathways that are opened in the bush, the faster and further roaming dogs and foxes can travel and the greater the damage they can do to the local fauna.

A more surprising danger from the opened paths is that even native fauna can venture into areas where they normally don't penetrate but where they disturb species from which they are normally separated.

Michael Paul reports seeing glass/black cockatoos being mobbed by noisy mynahe in areas that have been opened up



by clearing. This example illustrates the problems that can arise from developments occurring in areas where the ecosystem is not adequately understood.

Michael's ornithological studies and the contributions made to his studies by people responding to this column show how much we still have to learn.

Fortunately, only one of the proposed track options requires a major new track to be cleared: a section running from Riverview Road to Freres Reserve in Kentlyn.

Another great danger of the proposed tracks is that they will bring vastly greater numbers of people into our fragile bushland.

Unfortunately, not all

track users are aware of the damage they can cause.

This week we watched as three trailbikers careered through Shirley's territory, gouging violent scars in the soft earth of a muddy bush track.

Another dramatic example of vandalism was the weather damage inflicted on the old beach track which had been beautifully restored from the end of Georges River Road to the Basin.

Other problems arising from increased human access will be more littering, rubbish dumping and arson, not to mention horse, dog and human faeces.

With these impacts will come greater weed intrusion.

Finally, there will be greater impacts on the Aboriginal rock art which still survives near the proposed tracks.

Next week we'll discuss the benefits of the proposed system of tracks and weigh up the pros and cons.

By Steven Ward and Robert Close

Path plans on display

In the last two columns we've discussed the location and potential problems of the walking tracks that are proposed for bushland areas

between the Georges River and the suburbs of Ruse, Kentlyn, Leumeah, Minto Heights and Ingleburn.

This bushland includes the best breeding areas for koalas.

In today's column we'll discuss positive aspects of the proposals.

Firstly, the tracks will provide easier and safer access to our bushland heritage which is a resource for all residents; the tracks should allow more people to enjoy it.

Although the bushland is accessible now via fire-trails and unmarked paths, many people may not feel comfortable wandering off into the unknown.

The upgraded paths would be marked, sign-posted and equipped with rest-seats.

They would also be stabilised in areas such as creek-crossings to prevent damage from erosion.

Consequently, the paths have the potential to become a great attraction to both local people and visitors from other areas.

Such visitors would spend money in the area.

Moreover, greater numbers of dedicated walkers on the paths could actually be a deterrent for the trail-bikers and rubbish dumpers who are currently damaging the existing paths.

Should the pathways be successful, more people will realise how valuable our bushland areas are and are more likely to protest to prevent them being destroyed by unsuitable developments.

One such development is the proposed Georges River Pathway (see any recent



street directory) which will bisect the best bushland and koala breeding areas.

However, prepared pathways will soon degrade unless their condition is carefully monitored and repaired as necessary.

In addition to the costs of construction, the council will have to supply on-going funding to maintain the paths.

In addition, we think that a dedicated ranger is necessary for the plan to be a success.

The ranger's main duties would be to monitor and care for the prepared pathways and also the fire-trails used by walkers between Ingleburn Reserve and Appin.

The ranger would control illegal use of the paths by trail-bikers and horse-riders, remove roaming dogs, notify the council of weed outbreaks and rubbish dumping, have an educational role talking to walkers and perhaps give talks to local schools.

The plans are now on display at the council and library.

If you have an interest in the pathways, please look at the plans and make a submission to the council as soon as you can.

In the meantime, remember our UWS koala hotline, 9962 9996.

By Robert Close²⁴
and Steven Ward

The Macarthur Advertiser, Wednesday, July 16, 2003

Cattle trample koala to death

THERE'S been lots of koala activity during the last three weeks.

Firstly there's the sad story of a young female from Joadja.

She had apparently been trampled by cattle and was brought in with a broken back and femur and covered in cow manure.

It is likely that when she came down to change trees, the cattle gathered around to investigate and were disturbed in some way which led to the trampling.

The youngster was so badly injured that she had to be euthanased.

On a brighter note, we've had several sightings of ear-tagged animals.

It is exciting to recognise a tagged animal, then search the records to find where and when we'd last seen it.

Our regular reporter, Kieran Griffin, reported finding Tim beside Peter Meadows Creek.

He was first discovered three years ago in a palm tree in



Ruse and prior to the most recent sighting was seen in January this year near Coral Road.

He has apparently become top male in the area, since giving poor old Kevin the boot.

One of his ladies is sure to be Kathleen who was also spotted recently by Kieran Griffin, the first sighting since October last year.

Another of Tim's ladies is likely to be an untagged youngster also spotted recently by Kieren.

She was too high, unfortunately, to attempt a catch.

Tim will have to watch his step, however, as Greening was also spotted recently in Tim's area.

Greening was last sighted in April last year

and would still be too young to challenge Tim.

No doubt we'll hear more from him in future.

On the southern side of Campbelltown, we've also had sightings.

Eagle-eyed Julie Glasson spotted two animals.

The first was a mature male, high in a grey gum on the Campbelltown side of Wedderburn Gorge.

This male was apparently untagged but the tree was too high and multi-branched to attempt a catch.

Julie's second sighting was of Elle and her young cub in a tree beside the road on the other side of the gorge.

Elle has been tagged for 10 years but in all that time has only been reported twice by volunteer spotters.

Koala activity time appears to be starting early this year, so we ask people to keep watch and report to the UWS koala hotline 9962 9996.

By **STEVEN WARD**
and **ROBERT CLOSE**

Drive carefully through bushland

WHEN Peter Bradley drove down Wedderburn Gorge recently at 4am, he was stopped by a koala on the road, with her cub clinging desperately to her head.

The narrow road at that point had a cliff along its upper side beside which the RTA had erected a low fence to prevent stones from rolling down on to the road.

The koalas were deflected by the fence and Peter was concerned that they would be hit by a car before they could escape from the road.

So he shepherded the



animals down the road until they eventually escaped up a tree.

The female paused at two metres and Peter could clearly see a white tag in her left ear.

On his return home after work, Peter contacted Robert via the koala hotline and they met where the koalas were last seen.

The koalas had vanished but, after consulting our records, we decided that the white tag showed that the mother was Martine, originally found at the same spot in October, 1998.

She was then only a year old so now is almost six.

She's been reported a few times since then, mostly close to the road, and we marvel that she's not yet been hit by a car.

Consequently, we urge motorists to drive slowly where the cliff and fence block animals' movements.

We suspect that Martine and cub were

last seen last week at the same spot.

However, we reported that sighting in this column as Elle, who has a yellow tag.

When we radio-tracked Elle and her cub the next day, though, she was a long way away and we suspect we made a mistake.

We also made a mistake of reporting the spotter as Julie Glasson when in fact it was Julie Wasson.

Our apologies to both Julie and Elle.

Peter Bradley recounted many fascinating records of local wildlife, one of which was a sighting of

lyrebirds on the other side of the gorge.

In a sad coincidence, as Robert drove home up the gorge, he noticed a lyrebird's glorious tail feathers blowing down the road and round the next corner found a dead lyrebird, killed only minutes earlier.

This story emphasises the richness of our local wildlife and also that when we drive through bushland we must give ourselves time to react to the unexpected.

So slow down, watch out and remember our UWS koala hotline: 9962 9996.

By Robert Glose and Steven Ward

Keep a look out for koala on foot

CAN anyone help us to verify our strangest reported sighting of a koala?

It was reported to Campbelltown Council on Friday, July 25, as being outside the ambulance unit in Broughton Street and heading for Queen Street.

The council immediately dispatched a posse to find it but in vain so we ask anyone who witnessed this sighting to contact us at Robert's university number 4620 3203.

If the sighting was legitimate (and who would invent such a story) we want to verify it. The koala may still be in Mawson Park.

Such a sighting is not impossible for that is only 2 kilometres from Smiths Creek where we have verified sightings.

Koalas can easily travel that distance in a night or two, resting in backyard trees during the day.

■ So Mawson Park visitors, keep your eyes open!

During the week, UWS science students assisted in the recapture of two of our radio-collared



females, Lyn and Amanda (see photo).

Their radio-signals were becoming weak after 12 months and it was time for their battery change and check-up.

Although at least 9 years old, Lyn was in good condition though, unusually for her, her pouch was empty.

Amanda, however, who is at least 8 years old, had a young female cub with her who was apparently still drinking from a lactating teat in the pouch.

The students were able to hold the cub (now named Debbie) while we changed her mother's collar.

They all agreed that it was a fascinating first class for the semester.

■ German student Julia Wilhelm who is studying at UWS as a one-

semester component of her German degree doubted whether her German lecturers would ever be seen climbing a tree.

"They're much too formal!" she said.

■ Martine and her cub were once again reported as being caught by the low fencing beside Wedderburn Road near the Gorge.

Regular users of that road should be prepared for a sudden encounter with a koala as they come around the sharp turns.

■ Finally, we were called to Airds where a huge koala was sighted.

He turned out to be Grant (Grunt) who had weighed in at a thumping 12 kilograms when first captured in December 1998.

We believe he's the squeeze for Shirley, Irene and Chloe.

So it was great to find that he's still around and in good form.

These reports demonstrate the importance of our community hotline: remember 9962 9996.

By ROBERT CLOSE and STEVEN WARD



HELLO AGAIN . . . UWS students catch up with Lyn.

Bearing it in spring

Our most recent koala sighting came this week from Minto Heights where an untagged male was seen walking between trees at 3pm by the Pok family.

By the time we arrived the koala was high in a tall grey gum, the sort of tree that makes for difficult captures.

So the job was clearly one for our trap, which is actually a small fence that encircles the trunk leaving a small outlet point that leads to a wire boxtrap.

Although we've had a few failures with the trap, we are now eliminating the glitches and this time succeeded in capturing the animal.

He was about two/three years old, in prime condition but still about four kilograms short of his potential adult weight.

The Poks named him Justin after their son who died in an accident several years ago.

Hopefully Justin will remain in the area and provide the Poks with pleasure for many years to come.

Spring, however, is in



the air and the resident mature male, Jacob, will be defending his territory, so young Justin's stay may, in fact, be short.

Let's hope that people will spot him and report on his travels.

Talking of spring, Robert is now under serious attack from an old male magpie who, for the last three years, has been swooping on the final 200 metres of his cycle trip into the university.

The attacks start during the last week of July and continue well into summer.

Only cyclists are persecuted by this rambunctious old bird and UWS students are delighted to watch, unscathed, as their lecturer cycles the gauntlet.

Fortunately this bird

never actually strikes but some individuals repeatedly do.

What can be done about such birds?

Scientists from Griffith Uni have shown that after the translocation of dangerous magpies, new males usually fill the void within hours, then help raise the original chicks.

Other findings were that the males need to be moved 30 kilometres to reduce their chances of returning and that only 15.6 per cent of translocated males were subsequently resighted.

If you would like to learn more about our local birds, Michael Paul, resident ornithologist, will be talking tonight (Wednesday, August 13) on *Threatened and declining bird species in the Campbelltown LGA* at the NPA meeting in Campbelltown North Primary School, Thomas Street, at 7.30pm.

All are welcome and it should be a fascinating talk.

Remember our UWS koala hotline 9962 9996.

By Robert Close and Steven Ward

20 rare species disappear

Michael Paul's talk last week to the NPA about rare birds in the Campbelltown region was a fascinating but sobering story of the richness we have and what we are losing.

More than 170 species have been recorded but 20 have now disappeared.

Forest and woodland birds, particularly those that forage on the ground, are most at risk as their natural resources, soil, grasses and other native vegetation, dead timber and rocks, are damaged, changed or removed.

Clearing for housing, agriculture, fire breaks, roads and tracks has already led to the loss of 80 per cent of the shale/sandstone transition forest that harbours most of our threatened birds.

This vegetation contains more nutrients



than that growing on the less fertile but more abundant sandstone soils, so it can normally support more species and greater numbers of birds.

Michael then showed graphic images of human activities that damage the birds' habitat.

Weeds which choke the native vegetation and prevent birds from foraging are spread from dumped garden wastes and contaminated soil.

Likewise, "under-scrubbing", the scraping away of the understorey, has also damaged native

vegetation, as do too frequent burning of the vegetation and the destruction of the bush by trail bikes.

Michael also stressed that fallen timber is vital for ground foraging birds and that the removal of this material for firewood is having dramatic effects.

So, too, is the lopping and removal of old trees with hollows that provide the nesting sites for many species.

Ironically, a native species is also causing great problems.

The noisy myna, well known in most suburban gardens, has been advantaged by bush clearing and is able to penetrate 100 metres into natural bush where it then drives out all animals (not just birds).

This assault has multiple effects, including the destruction of trees by insects that would

normally be controlled by insect-eating birds.

Because the transition forest which lies between Campbelltown suburbs and the Georges River is long and thin in shape, the area colonised by the mynas is enormous and expanding.

So, all things considered, saving our birds will be a daunting task.

One bright spot was a map that Michael showed of the distribution of sightings of the glossy black cockatoo constructed largely from the reports from respondents to past Mac Club columns.

The sightings coincided with the map of the remaining Transition Forest, thus emphasising its importance.

Don't forget our UWS koala hotline 9962 9996.

By Steve Ward and Robert Close

Feathering nests with koalas

In last week's column we summarised a segment of Michael Paul's recent talk on local birds to the National Parks Association meeting on the damaging effects of noisy miners on other local birds near cleared areas.

Michael also mentioned that the bell miner, or bellbird as it is better known, is also found in a few places in Campbelltown bushland and, like the noisy miner, also drives other birds from its area.

Both species of miner have a patch of yellow skin behind the eye which accentuates the size of the eye and makes them appear more ferocious.

This yellow skin is also a feature of the introduced Indian myna which has invaded



cleared areas of Campbelltown and causes great damage to local birds by building its nest in tree hollows used by native species, often on top of native nestlings who then die.

Michael's great interest, however, is in the rare black-chinned honeyeater and he estimates that the Campbelltown population may consist of only a dozen birds.

Their nests are invariably lined with the fur of mammals and, as

the most accessible local mammal is a koala, it is likely that there is a relationship between the two animals in Campbelltown.

Fortunately, koalas are now relatively common in the honeyeaters' valley and their soft, insulating fur would produce a nest of high quality.

Koalas, however, may not have always been common in the valley.

Twelve years ago we searched for koalas in the honeyeaters' valley with the aid of students from Leumeah High School and found no traces.

We were searching for scratch marks and faecal pellets as well as the koalas themselves and would normally expect to find the distinctive pellets if there was a resident koala.

It was not until 1997 that we found our first koala in the area.

This was Amanda, who we are still radio-tracking.

We now know that there are at least five koalas in the valley.

It would be fascinating if koalas are expanding in the area and their presence is helping the black-chinned honeyeaters to survive.

Who knows? Maybe we'll see an expansion of the honeyeaters too.

So if anyone sees a small bird with a black head and white eye stripe plucking fur from a koala, we'd love to hear from you.

Call our UWS koala hotline: 9962 9996.

By Steven Ward and Robert Close

Rise and fall

Koalas are adapted to falling out of trees because over millions of years those koalas with physical attributes that allow them to survive falls will pass on their favoured genes to the next generation while the genes of those not so well adapted will disappear from the population.

New mutations that improve those surviving genes will accrue in the population and koalas will therefore become increasingly better adapted to falls.

This scenario helps explain why the koala has developed such a huge caecum, a two-metre long bag attached to the intestine.

This bag is packed into the front of the koala's belly and gives the animal its tubby appearance.

We think the bag acts like the airbag in cars, absorbing the impact of a fall.

Koalas also have flexible hinges on their ribs that reduce breakages.

Despite their adaptations, koalas are sometimes injured, as we discovered recently.

We were catching our radio-collared koala Elle so that we could ear-tag her cub before it becomes independent.

On such occasions we reduce risk by ensuring that the koalas are in small, easily accessible trees.

Elle was recently in such a tree and, watched by a group of Green Corps members, we began the catch.

Our flags could reach Elle and cub from the ground but the pair disappeared into thick foliage close to the trunk followed by a loud crack as the thin, burnt trunk



snapped, tumbling Elle and cub four metres to the ground.

Elle was momentarily stunned while the cub rolled safely off her mum's back.

We then took them to Campbelltown Veterinary Hospital where Peter Brown inspected Elle's bruised chin, gave her an antibiotic and a spot of glue to a loose lower incisor.

The pair was soon released back in their home range, and daily checks since then have shown that mother and cub are well and eating heartily.

Although the incident was a shock to us, it was the first catching injury in 10 years and 200 catches.

Most zoological studies carry a certain risk to both animal and researcher, yet we feel we have to accept that risk to help guarantee the koalas' long-term survival by identifying habitat, physical and genetic health, movement, mortality, reproduction rates, tree choice and population size.

This information is needed to ensure that the koalas and their habitat are protected and properly managed.

Please help by reporting sightings on 9962 9996.

**By Robert Close
and Steven Ward**

On the trail of the big cats

Residents near the Grose Valley behind Richmond are wary when they walk in the bush at night.

Sightings of a large black cat have been reported so frequently and by such reliable witnesses that residents are taking the threat seriously.

We have seen photographs of sheep and goats killed in the area that are consistent with a leopard killing them.

Leopards eat the meat from the bones and leave them exposed in a characteristic manner that is unlike the remains left by a dog.

Pug marks left at the sites of kills have also been consistent with a large cat (no claw marks) rather than a dog.

Students at UWS are investigating the



phenomenon by looking at the DNA in a faecal sample believed to have been left by the Grose Valley cat.

While preparing for the study we've learned a lot about big cats.

Leopards (*Panthera pardus*) are found in Africa and also in Asia where they are usually called panthers.

This term is also used for the black form.

The closely related but heavier jaguar (*Panthera onca*) comes from South America.

Both leopards and jaguars can occur in the black form, although to

be black the animal must inherit a recessive black gene from both parents.

The most common colour for both leopards and jaguars, however, is spotted.

One of our students, Steve McKenzie, is tabulating and analysing all the data collected from the sightings of the black cat to investigate any patterns that might provide information on the animal.

The data was originally collected by Grose Valley residents Chris Coffe and Ken Pullen and mapped by Chris Daley of Hawkesbury Council.

The other students, Emily Daly and Alexander Drew, trained by Grace Hey and Amanda Brindley, are conducting the DNA studies.

Their first task is to

determine the DNA patterns for various species of cats. So we collected spoor (faeces) from Bullens at Wallacia who kindly provided us with samples from lion, tiger, puma and leopard.

We'll report later on our findings.

Panthers, no doubt, would find koalas easy prey.

Although adept at climbing trees panthers would probably catch koalas as they move from tree to tree.

It may be no coincidence that koalas are uncommon in the Grose Valley area despite apparently suitable koala habitat!

Please report any koala (or panther) sightings to our UWS koala hotline 9962 9996.

By Robert Close and Steven Ward

Give a hand to our cliff-climbing koalas

About 10 years ago, a land-owner at Wedderburn contested a land-zoning regulation with Campbelltown Council and the matter went before the Land and Environment Court.

Robert was called as an expert witness to discuss whether the land included koala-breeding areas or was a corridor for koala movement.

The area lay one kilometre upstream from the river crossing at Wedderburn Gorge. At that time, our studies had only been underway for a couple of years and we had recorded only a few sightings from the gorge area.

We examined the disputed land and found some old, possibly koala,



scratches but could find no faecal pellets.

Although a fierce fire had recently burnt out the area, leaving most of the vegetation blackened, there were plenty of the koalas' favourite grey gums.

We concluded that the area looked as though it had good potential for breeding and that it certainly would be part of a corridor for dispersing koalas. The court wanted to know exactly how wide the corridor

would have to be. But, of course, we could not give an accurate answer at the time.

We now know much more as we have three breeding, ear-tagged females and two ear-tagged cubs and two males in the gullies and we know that their areas extend to trees on the upper edge of the Wedderburn Gorge.

Furthermore, dispersing young males have been found 200-300 metres from the edges.

We also know that there are at least two untagged koalas in the gorge as they have appeared several times recently.

On one occasion, two adult animals were sitting in the middle of the road near the crest on the Campbelltown side and had to be

virtually shoved off the road.

On the Wedderburn side, an untagged animal was trapped between the road and the cliff face.

The cliff face had recently been smoothed out by a road crew to stop rock falls and koalas are now unable to climb to safety. One caller had to stop on a blind corner to help an animal up the rock face.

We plan, therefore, to talk to the authorities to see if we can place some climbing apparatus in the most dangerous places.

In the meantime, drivers should take care in the danger spot and remember our UWS koala hotline, 9962 9996.

ROBERT CLOSE and STEVEN WARD

In the hollow of the mall

Observant shoppers at Minto Mall can glimpse the striated pardalote which, although becoming rare near Campbelltown, is nesting in a pipe in the entrance superstructure of Minto Mall.

Local "birdo" Michael Paul supplied the information provided in this column.

He noticed a single bird several weeks ago calling very loudly at the front entrance of the shops and later was delighted to discover two birds busily bringing nesting material to the Mall's "hollow".

They normally build their nests in tree hollows of large eucalypts (although occasionally they may dig a nest burrow into the side of a cliff or creek bank).

The striated



pardalote inhabits shale areas containing the much depleted Cumberland Plain Woodland, while the far more common spotted pardalote is found throughout the less damaged sandstone areas.

Normally the striated pardalote hunts insects high in the canopy of eucalyptus trees but there are now few Cumberland Plain Woodland remnants of a suitable size and with trees old enough to provide suitable small nest hollows.

The other

requirement for successful breeding is that there must be no noisy miners. [We are assured this is the correct spelling.] These birds chase the pardalotes (and other species) from the woodland.

Michael Paul speculates that the pardalotes have been attracted to Minto Mall because there are few noisy miners in the small eucalypts in the Mall's car park and that these eucalypts and others in the area have enough insect food for the pair to feed on and raise a family.

The lack of a suitable big tree is solved by using the piping of the Mall. Let's hope the pair successfully rear their young.

If striated pardalotes are to survive in the Minto area, local remnants of Cumberland Plain

Woodland must be preserved. We therefore support Verlie Fowler's plea in a recent letter to the *Advertiser* to prevent Piggot Bushland Reserve at Minto from being bulldozed for housing.

Piggot Reserve is a small remnant of shale vegetation that does not support a noisy miner colony – and so has a high diversity of insect- and nectar-eating birds, including the beautiful scarlet honeyeater.

The eucalypts in the reserve are not yet old enough to bear suitable nesting hollows for the striated pardalote but in time they will.

The bushland should therefore be fenced and preserved, as Verlie suggested.

Remember the UWS koala hotline – 9962 9996.

By Robert Close and Steven Ward

Big search first step

Thirty years ago, an estimated 100 koalas roamed the Barrenjoey Peninsula.

Avalon residents' tree-filled gardens were visited regularly by koalas, and to several generations, koalas were a magical part of their childhoods.

By 1990, however, the koala population had dropped to a mere half dozen, and there has been only one reported sighting this year.

What has happened to cause this dramatic loss?

Residents agree that the clearing and filling of a large swampy area that was covered with stately swamp mahoganies was a major cause.

Swamp mahoganies are eucalypt trees that koalas especially favour.

The trees grow in moist areas, so their leaves are always succulent and they are especially valuable in times of drought.

Furthermore, the wetness can deter predators.

Koalas, however, are not deterred.

We have radio-tracked a koala in north NSW into swampy areas so deep that the animal must have swum to reach trees!

The loss of the major stand of swamp mahoganies in Avalon may have been critical.

Unfortunately, residents say the development company that removed the trees failed to comply with all the ameliorative measures which had been promised.

In addition, increasing demand for housing in the area led to extensive clearing of bushland for homes and also to provide sweeping views along Pittwater or the beach front.



The National Parks and Wildlife Service (NPWS) and the University of Western Sydney have been given funding to discover whether any koalas remain.

A group of us from the UWS Campbelltown Koala Unit travelled up to Avalon last weekend and met NPWS researchers and Kim Belothi, a local who has been keeping records of koala sightings.

We visited all the sites of recent sightings, inspected parks and reserves, went spotlighting through bushland, spoke to residents and brainstormed ways of conducting a suitable survey.

Scratch marks on food trees were plentiful, but so were Brush-tailed possums and they make similar marks.

No faecal pellets were found that were conclusively koalas', but food trees were not uncommon and the bushland looked as though it could still support a small population.

What we need is a huge, community-powered search to find surviving animals, and that will be our first objective.

Call 9962 9996 to report koalas in Campbelltown or Avalon.

By Robert Close
and Steven Ward

Campbelltown Macarthur Advertiser, Wednesday, October 8, 2003

Note:

No column published on this date

Tree boost

Last week, we described the vanishing koalas of Avalon, a population that has almost disappeared in just 30 years.

Their colony has almost gone but Avalon residents have undertaken an active campaign to maintain what few animals may remain and, hopefully, allow the population to recover.

More than 3000 local people concerned about the fate of the koalas and continuing loss of koala habitat and inappropriate development are on a mailing list to receive information updates and to co-ordinate a campaign to push for a Koala Plan of Management.

Because the residents believe that tree removal has been the major factor in the koalas' disappearance, they have developed a remarkable program to plant the main feed trees, swamp mahoganies and grey gums wherever they can.

The three local primary schools take part in these plantings and koalas feature in the school activities.

In addition, residents are generous in their donations to continue the program, while local shops support it by displaying information posters – all this for a population that may number less than half a dozen animals.

In contrast, Campbelltown's koala population is relatively healthy, probably numbering 200 or more animals.

If we are to avoid the tragedy of Avalon, we should be working now to



protect the habitat that sustains our animals and to ensure that remaining bushland is not cleared.

Last weekend, however, UWS students took part in a biosurvey, run by the National Parks Association, of bushland that lies between the Georges River and Appin Road. In Spring Creek we found the gross pollutant trap to be grossly polluted and, down stream, masses of rubbish festooning the rocks and vegetation.

In St Helens Park bushland we found methodical patterns of unmarked surveyor's pegs, illegal clearing, rubbish dumping, trail bike damage and a dog running free at night.

Further south, in riverside bushland, we found large-scale "under-scrubbing", which is the clearing of all the understorey vegetation.

This type of clearing removes all young plants and disrupts the natural recycling processes of the topsoil and leads to erosion and river contamination.

If you see signs of inappropriate activities of any kind that are destroying woodland, contact Campbelltown Council or the police.

If you see a koala, call the UWS koala hotline 9962 9996.

By Robert Close
and Steven Ward

Nat's back after anxious year

Our koala team was rejoicing two weeks ago when, after a year of worry, we finally rediscovered Nathan, a large radio-collared male koala that lives in Wedderburn Gorge/Spring Creek.

After a failed attempt to capture him last year to replace the battery in his collar, his signal suddenly ceased.

Despite exhaustive searches there was no sign of him.

Up until that time, he had been regularly spotted by people living on Ironside Drive and by motorists driving through the gorge.

We feared that he had been driven out by a young male and this notion was supported by the appearance of Alex, a younger male, at the head of Spring Creek.

Nevertheless, our chief radio-tracker Lynn refused to call off the search.

She jumped at the chance recently to enlist the help of UWS science students who were participating in the Macarthur National Parks Association's Biodiversity Survey. Hunting is always more successful



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By **STEVEN WARD** and **ROBERT CLOSE**

if there are many pairs of eyes looking because sometimes a koala can only be seen from a very narrow angle.

The more eyes, the greater the chance someone will be in the right place.

Koalas also have the habit of quietly moving behind the tree trunk to avoid watchers.

This trick doesn't work when there are many people to hide from.

So when the group of students set off they soon spotted Alex near Ironside Drive.

They then pushed on to where Karl Hahn, environmental defender of Spring Creek, had recently reported sighting a large koala.

To our great delight a grey lump was

spotted in the top of a grey gum and the ear tags identified him as Nathan.

The tree was a poor one for climbing so we used our ground trap.

Mick and Wendy Fairs and Lynn volunteered to sit, wrapped in sleeping bags, to wait in the dark for Nathan to climb down and enter the trap.

They were treated to a splendid performance of bellowing before Nathan descended at 10.30pm and obligingly entered the trap.

He weighed a solid 10.5kg and was in fine condition.

We decided not to replace his faulty radio-collar and with some misgivings released him with only his ear tags for recognition.

This means that we will rely on community sightings to plot his future movements.

We anticipate he'll be around for some years yet.

■ Report koala sightings to 9962 9996.

Maps drawn mentally

We are now in the peak time when young males aged two years or so leave their mothers' areas and set off on their own.

Justin is one such traveller that we captured, ear-tagged and released two months ago at Minto Heights.

Then, last Friday week, he was spotted near Coral Road at Kentlyn, having moved three kilometres along Peter Meadows Creek.

Three days later, he was noticed 2km further on, at Giles Crescent, Ruse, having crossed the busy Junction Road.

Two days later, he was in Leichhardt Street and next day was safely in the Smiths Creek bushland.

Justin's visits were a great treat for residents as he was walking down the streets apparently undisturbed by a small group of people following him.

Our advice to people that might spot him is to watch from a distance of at least 10 metres



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and not try and direct him in any particular direction.

We've discovered that our koalas know their established areas extremely well, and we wonder whether the young males, when they are travelling, are constructing a mental map of their surroundings.

It may therefore be quite disturbing for them if we were to move them from perceived dangers and release them in areas they don't know and can't fit into their mental map.

If Justin stays in Smiths Creek for a while, residents there should listen for his bellowing.

The noise sounds like a pig in torment and can be heard for 500 metres on still nights.

Another young koala was spotted last week crossing Appin

Road near the Spotted Gum forest.

Although we searched, we could find no trace for him. The bushland there appears to be excellent habitat.

Yet another young male was crossing Heathcote Road near Deadman's Creek.

Unfortunately, a car hit him before he could reach safety.

Another motorist, however, spotted Martine and cub again crossing Wedderburn Road in the cliff part of the gorge.

He had to stop his car in a perilous position to let them find a way off the road.

Please phone the UWS koala hot-line on 9962 9996 to report a sighting.

We ask Chris Wood to call us again.

Young koala dead

Last week's death of a young koala on Heathcote Road was followed this week by the death of another young male at Pheasants Nest bridge on the M5, our second from that area this year.

On the same day we received a report from WIRES about another road-killed koala near the Picton off ramp.

However, we were unable to locate the body, so if anyone can give us any information about it, we'd be most grateful.

We also received reports of two cars having to swerve to avoid a koala on Peter Meadows Road.

We went out to check and found Amanda, one of our radio-collared females, close to the site.

This part of the road, where Peter Meadows



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road meets the creek is a concentration spot for koalas and also has blind corners.

We fear that it is a just a matter of time before we find the death of a koala or an accident caused by swerving vehicles.

Another report came in from Kieren Griffin of a young koala not far from Peter Meadows Road.

This animal had ear tags and turned out to be Janice, the daughter of Irene.

Janice grew up living immediately adjacent to Shirley's territory near the Georges River, and a few weeks ago we found her in a tree well within Shirley's territory.

This find led us to wonder whether Shirley was about to be pushed out.

After all, she is at least 12 years old now and may not be as strong as she once was.

Janice, however, was apparently just passing through and has wandered a further two kilometres north, bypassing the territories of Lyn and June.

This is unusual as most of our young females tend to stay close to their mother's area.

We'll watch her progress with great interest.

Three other ear-tagged cubs, from our radio-collared females,

have also just left their mothers and are likely to be crossing unfamiliar roads.

Yet another untagged mother and cub were spotted near Nathan in the Spring Creek valley which meets the Georges River by the Wedderburn causeway.

This is the fourth breeding female that we know of in this valley.

How many more can fit in?

This question is a vital one because we've always thought of the Campbelltown koalas as being a low density population.

Perhaps it's not.

Reports of sightings by the community will help resolve the question.

Call 9962 9996.

■ By Steven Ward
and Robert Close

Stuck up palm tree

Answering a call at Kentlyn last week we found a young untagged male koala perched rather dangerously in the heart of a palm tree, each frond of which was lined with a barbarous array of sharp, curved spines.

The palm tree, however, was small enough to reach the koala by climbing a stepladder; but although we could reach him, the spines prevented us from removing him.

To our surprise the koala was quite lethargic and allowed himself to be touched without biting or scratching in response.

Normally young males will react rapidly, often jumping wildly from limb to limb with great athleticism; so we suspected that something was wrong.

Eventually we managed to extricate him from his spiny retreat and found that his body condition was poor.

We measure condition by feeling the muscle bulge on both sides of the shoulder



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blade and this young fellow measured only two out of a possible four.

No doubt his condition was affected by having spent the last two nights stuck up an inedible palm tree in a backyard complete with dogs.

As koalas carry no spare fat they will suffer if deprived of food for more than 24 hours.

Our problem then was as follows: we had a five-kilogram koala (half grown and about two years old) that had probably only recently left his mother's territory.

In his travels he was probably not eating enough of the sort of leaves that supply adequate moisture and nutrients.

Consequently we had to decide whether to take him into care till he'd fattened up a little or find a suitable place for him that provided suitable

foliage. Fortunately, we knew of a house nearby that had a fine eucalypt growing in the drainage area of a septic tank.

We'd previously seen koalas eat the leaves of this well-watered tree with relish, so we felt it would be a suitable recuperation site.

The koala obviously agreed and was seen later high in the tree attacking the leaves with great gusto.

We'd hoped that he would stay in the tree for several days until fit and healthy but the next morning he was gone.

No doubt he'll turn up again soon so we ask Kentlyn home owners to watch out for him and investigate any unusual barking of dogs.

Call us at the UWS koala hotline on 9962 9996.

■ By Robert Close
and Steven Ward

Bearing the name

It's been our habit to give naming rights to members of the community whose calls to the koala hotline result in us capturing and ear-tagging a new animal.

That is, the successful caller can choose the name of the koala.

Readers may have therefore wondered why we didn't mention the name of the young male that we retrieved from the backyard palm tree last week.

The reason for the delay was that the caller, Shirley Pok, was still in the throes of decision.

Now, however, the young male is named Harrison after the street in which it was captured and released.

This makes the task of remembering the name a little easier for us.

As we've now more than 100 ear-tagged koalas, the task of recalling all the names is becoming quite



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difficult unless the name is related to its capture site.

Harrison, however, has not been reported in the week since his release so we hope people will spot him from time to time just as they are now sighting Justin.

This young male, you may recall was seen wandering into Smiths Creek bushland after strolling down from Minto Heights.

Residents, this week, have heard him bellowing vigorously and seen him high up in the foliage in Smiths Creek.

Our tip is to watch for him next in Leumeah High School.

Other calls that came in included one from the police to record yet another mother and cub sighting at Wedderburn Gorge and

one from Dianne Elliott at Kentlyn to report tufts of white fur strewn on the ground.

We'd seen similar tufts, previously, beneath a tree in which we'd found two male koalas and assumed that there had been a bit of a punch-up.

Dianne tells us that the amount of fur this time was much greater than before and she had some fears for the fighters' safety.

Robert is going to check the sample under the microscope this week.

As we are now in the height of the mating and dispersal season for koalas, residents are more likely to see and hear koalas than at other times of the year.

So don't forget the UWS koala hotline 9962 9996.

Friend of bushland will be missed

Campbelltown lost one of its staunchest defenders and appreciators of our bushland and historical heritage when Keith Longhurst died last week.

He will be sadly missed by all who shared with him a love for the Georges River and its surrounding bushland and all who relied on him as a repository of historical information about the district and its fauna.

Keith also had a special relationship with koala research in the district, having been in the group of National Parks Association members who conducted surveys of the Wedderburn bushland back in 1986.

NPA koala records show that Keith took part in the sighting of at least 16 koalas between 1986 and 1988.

These sightings led to a fierce environmental campaign in which 15000 signatures were raised in petitions to stop the housing development of bushland at Wedderburn above O'Hares Creek.

This campaign eventually was successful and the Gorge



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and its associated bushland remain unspoiled.

Keith assisted us in the capture of our first koala to be ear-tagged way back in September 1991 and was a ready source of information about the history of koalas in the district.

It was always a joy to be in the bush with him because he knew it so intimately, had such a fund of stories and was so enthusiastic and knowledgeable.

But woe betide anyone caught abusing the bush.

Culprits could expect an educational lecture and a colourful tongue-lashing.

Keith's environmental contribution to the region has already been recognised in his being awarded Campbelltown Council's Heritage Medallion.

However, it would be fitting if the community could remember Keith's environmental contribution in some permanent and public

way. We would like to institute our own memorial by ensuring that a male in the next crop of cubs from our radio-collared females will be named "Keith".

However, it would be better if the next "Keith" were a long-term resident.

As young male cubs tend to wander out of the district, we would prefer that the name go to the next mature, resident male spotted by a community member.

So there is added incentive now to spot a koala.

One big, suitable fellow was spotted last Sunday crossing Wedderburn Road halfway up the slope on the Wedderburn side of the Gorge.

Unfortunately it had vanished by the time we arrived to attempt a capture.

Keep a lookout for him and remember the UWS koala hotline number 9962 9996.

Longhurst fund to pay for collars

Last week's column centred on the death of Keith Longhurst, a local naturalist and historian who had always enthusiastically supported our koala research.

Keith was a no-nonsense character who would have preferred money to be spent on an environmental cause than on flowers for his funeral.

Keith's family, therefore, suggested to his friends that, if they preferred, they could donate to our University of Western Sydney koala research program.

Consequently, we were presented with \$440 from Keith's friends as a tribute to the man they respected and loved.

We have now set up The Keith Longhurst Koala Research Fund to be managed by the university.

Contributions to this fund are tax deductible and will be used to fund day-to-day costs of our research.

As an example of what can be done, the generous donations from the funeral will pay for the refurbishment of our replacement radio-collars for 2004.

Refurbishment means a change of battery, re-waterproofing the transmitter and replacement of aerials which are bitten by admiring male koalas.

Because we have seven females wearing radio-collars, we must have seven replacement collars ready for the yearly battery change and another ready in case we need to follow a new



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animal.

The koala hot-line is financed by the UWS School of Science, Food and Horticulture but our current major costs are for chemicals used in our DNA studies.

We are also seeking funding to support a post-graduate student's studies in this area and to fund the big task of data entry and data-base management.

Last week, we also mentioned that young male koalas tend to move out of the district.

Such a journey was illustrated last week when a young koala was found dying beside the spotted gum forest on Appin Road after it was hit by a vehicle.

The ear-tags identified it as Ricky, who we had originally captured five kilometres away in Woodlands Road, St Helens Park, in October 2002.

We will use our data base of sightings to persuade Campbelltown Council to erect koala warning signs on Appin Road.

This is an example of how community sightings can contribute to koala (and human) safety.

Remember our hot-line number: 9962 9996.

By Steven Ward
and Robert Close

He could bear no more

Be warned: if you are disturbed by stories of animal suffering you should not read on.

However, we believe that the following story of an attack by pet dogs on a young koala needs telling so that people will understand that if they keep an unrestrained dog in their yard, for whatever reason, they could also face the situation met by the dog-owner whose story we tell.

We also thank her for notifying us; it would have taken some courage to do so.

Her nightmare began at 3am when she found her two large dogs attacking a koala and had to hose them before they dropped it.

The koala was still alive but the dogs' owner was unaware that our koala hot-line runs 24 hours, seven days per week, so left it till 9am next morning



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By **STEVE WARD** and **ROBERT CLOSE**

before she called us and **WIRES** to say that the koala was injured with a possible broken leg.

Lynn arrived and immediately took the koala to Campbelltown Veterinary Hospital.

The vets found the koala to be young, strong, male and, prior to the dog attack, would have been in excellent condition.

No limbs were broken and although some fur was missing and there were small wounds behind the ear and in the groin area, there was no other obvious damage.

The vets, concluded that the koala was severely bruised, in shock and in considerable pain.

They administered a pain-killer and advised to keep the koala quiet and undisturbed to give it a chance to recover.

We set the koala up in an enclosure with a supply of eucalypt foliage but he was very listless and although he survived the night, died quietly next morning.

A post-mortem examination revealed extensive, horrible bruising over its hindquarters, neck, shoulders and face.

The cheek bones were fractured, and two knobs at the base of the skull had broken off.

There was also a small puncture in the top of the skull where the dog's tooth had broken the skull without puncturing the very elastic skin.

This puncture probably eventually killed the koala by causing bleeding in the brain.

We cannot imagine how much that koala must have suffered and hope that dog owners who live near Campbelltown bushland will check that they are restraining their dogs adequately.

However, should an attack occur please remember our 24-hour hotline 9962 9996.

Adventures with koalas

By ROBERT CLOSE
and STEVEN WARD



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Mac's Koala Club publishes a regular newsletter for its members and the November issue lists 108 new members.

The newsletter also publishes articles, jokes and artwork and provides puzzles, stories and colouring pages.

The latest issue features a colourful drawing of our old koala, Shirley, by Ashleigh Daniels, of Rosemeadow.

The sketch is a reminder just how important our koalas are to the children of the district and why protection of our bushland is vital.

■ A busload of years 9 and 10 students met Shirley in person last week during the Siemens Summer Science School held at UWS Campbelltown. The students used the radio-receiver to find Shirley who was so well-camouflaged that even when they were standing beneath her tree they took several minutes to spot her. Shirley looked in splendid condition with a healthy ash-grey coat.

Perhaps she looks so good because this is the first year she has not had the strain of raising a cub.

We then moved a kilometre north to find Shirley's grown-up daughter, June, who has nudged into Lyn's territory near Kentlyn Primary School.

To the students' delight, they also located June's large cub, Shy, in the same tree as her Mum.

Shy is June's first cub and is in the process of becoming independent.

■ Meanwhile, at Wedderburn Gorge our radio-trackers Lynn, Mick and Wendy located Martine in a catch-suitable tree.

We had first ear-tagged Martine in 1998 and it was 15 months before we saw her again. She was still in the gorge and clearly settled into a permanent home-range. We decided she would be an interesting animal to radio-track.

However, since that time, we've never been able to find her in a suitable tree for a catch even though we saw the wily old girl 14 times.

Last week, at last, she made a mistake and we were able to set a trap for her.

She was accompanied by her cub, which appeared to be still suckling from outside the pouch.

When we caught Martine we found her coat was brown and her condition only fair, apparently the strain of supplementary feeding this large cub was affecting her.

Hotline: 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, December 24, 2003

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, December 31, 2003

New koala on the block

The bushland surrounding Spring Creek is home to several of our koalas: Alex, Nathan, Elle, Martine, Courtenay and their cubs.

Residents of Ironside Drive and Fullerton Crescent occasionally glimpse them or hear the males bellowing.

We've had few reports from residents living in the area adjacent to the bushland off Woodland Road.

So we were pleased to receive a call about a koala near Warrung Road.

Residents had heard it



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bellowing at night. Local student, Benjamin White watched it climb down from its tree and followed it to a new tree.

He was sure it did not have identifying eartags.

This meant that a new male was in the area.

Benjamin showed us the tree where the koala had been bellowing and we

searched near the trunk for droppings. The pellets were too small to be Alex or Nathan's, which convinced us the koala is a new arrival.

However, he'd be no match for Alex or Nathan so he may be forced to the edges of the bushland which would give locals a chance to spot him.

Remember the UWS koala hotline 9962 9996.

Scouting for the cubs and mums

Spring Creek, as we discussed last week, is home to several of our koalas, four of whom wear radio collars so that we can follow their movements.

One of these is an old female named Elle who is now over 10 years old.

Her radio signal was growing weaker and weaker and we were becoming desperate to find her in a suitable tree so that we could capture her easily and change the batteries.

Eventually we found her in a magnificent Christmas bush that was in its full Christmas pinkness.

The tree was only five metres high and this was well within reach of our flagged, extendable poles.

So when we started to wave the flags above her head she descended rapidly and we were able to capture her easily on the ground.

She was in fine condition, having recently weaned her last cub.

Readers may recall from one of our columns from early last November that, when we were capturing Elle and the cub so that we could give the cub its eartags, a burnt part of their tree snapped causing them to fall a few metres to the ground.

Elle cracked her chin on the ground during the fall causing a small wound and a loose tooth which required attention from Campbelltown Veterinary Hospital.

The mark on the chin is now scarcely visible and the tooth



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appears to be fine.

To our great delight, when we inspected Elle's pouch we found in it a pink baby about three centimetres long that was about two weeks old.

As the pregnancy lasts about 30 days, Elle must have mated in November, soon after her fall.

The baby will stay in Elle's pouch for six months before it ventures out.

It will then spend most of its time on its mum's stomach before moving to her back.

Gradually it will start spending more and more time away from its mother, perhaps on a different branch, then in a nearby tree.

Finally, some time after it's a year old, it will become fully independent.

The untagged cub of Elle's neighbour, Martine, has reached that stage now.

We see it regularly beside Wedderburn Road at the river crossing but have been unable to find it in a suitable tree for catching.

So we ask motorists to keep a close lookout for it and call us on the UWS koala hotline, 9962 9996, if they see it.

Become a skilled koala spotter

A caller from Airds recently contacted us to ask where would be the best local places to take an overseas friend to spot koalas.

Our reply was that someone not used to spotting koalas could, on average, expect to spend about five afternoons in the bush before seeing one; not very good odds.

Some people, however, have the knack of finding koalas and we have three local spotters whose success rate is much better than one in five.

After 10 years of study we can now give some tips that will help the keen spotter.

We have discovered that almost every creek



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By **STEVE WARD** and **ROBERT CLOSE**

gully that leads into the Georges River, from Minto Heights to St Helens Park, will support a breeding female.

As the average home-range size is about 10-20 hectares, it is possible to assess the chances of spotting an animal.

A square 10 hectare area is about 330 metres long by 330 metres wide.

Imagine how many trees could be growing in an area of that size!

Given that it often takes us several minutes

to spot radio-tracked animals, even when we've located their trees, the time taken to search every tree in a 10 hectare area would be enormous.

Fortunately, koalas often seem to like trees overlooking the cliffs along the creek-lines or the Georges River itself.

So if spotters walk along fire-trails close to cliffs, their chances will be better.

Our technique is to first examine the bark of the koalas' favourite

trees, the grey gum.

This smooth-barked eucalypt loses its bark in plate-sized patches, leaving fresh orange bark underneath that ages to become first white then grey.

The bark is quite soft and is easily marked by the koalas' sharp claws.

In areas where claw marks are plentiful we then look for the koalas' distinctive dry, brown droppings beneath scratched trees.

Searchers should be careful, however, because the terrain is so steep and often slippery that it is easy to fall.

Call the UWS koala hotline on 9962 9996 if you spot one.

Campbelltown Macarthur Advertiser, Wednesday, January 28, 2004

Note:

No column published on this date

Animal dumping is a very serious problem

On the day before Christmas, while our radio-trackers Wendy and Mick were parking in Wedderburn Gorge, they noticed strange movement beside the road.

Closer inspection revealed a fine black chook and two muscovy drakes scratching in the bushes.

Someone had apparently gone on holiday and rather than arrange for their pets to be looked after had just dumped them in the bush.

Fortunately the birds were used to being handled and we gathered them up and took them to Campbelltown Animal Care Facility.

Staff there put them in cages and assured us that someone was sure to give them a new



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By STEVE WARD and ROBERT CLOSE

home. What would their fate have been had

'Most discarded pets will die of starvation, while a few will survive and cause a problem for our native species.'

we not picked them up?

The ducks probably would have worked their way down to the river but would have found it difficult to find enough food to survive.

The chook would most likely have been killed by feral dogs or cats.

Unfortunately too many people treat

their pets poorly and are ignorant or care-fate less about the out-

comes of releasing their pets into the bush.

We once found a starving cat at the same place in the gorge and, not far away, a dumped, skinny dog.

Most discarded pets will die of starvation, while a few will survive and cause a problem for our native species.

Other thoughtless people use the gorge for dumping dead animals too.

We have found two large, dead dogs dumped beside the river and the site is often used to dump offal and unwanted parts of slaughtered sheep.

Household and industrial rubbish and garden wastes are also regularly dumped beside the gorge.

Of all these insults, probably the most damaging is the dumping of garden wastes.

Such dumping promotes the spread of weeds into the river and surrounds that will damage forever this beautiful and important area.

Remember the UWS koala hotline 9962 9996.

Four mysterious wallaby deaths point to canine culprits

People who walk regularly in bushland near the Georges River will occasionally see a dark wallaby crash away through the undergrowth ahead.

This animal is most likely to be a swamp wallaby, also known as a black wallaby or in Queensland rather unflatteringly as a stinker.

These wallabies stand about hip-high to a human and have black ears, tails, hands and feet, brown coats and yellow-khaki bellies.

Last year we were called out to the end of a road in Kentlyn to investigate a dead swamp wallaby.



A few months later we were called out again to find a female swamp wallaby lying dead in almost the same spot.

We thought, because of its wounds, that this animal had been killed by a dog.

To our great surprise, we were called again this week to be told that yet another adult swamp

wallaby lay dead the same place. A few minutes later the phone rang again and the callers reported that they had found a dead juvenile only 25 metres further down the track.

This juvenile had appeared since they first discovered the adult on the previous day.

Finding two wallabies at the

same site on separate occasions could be written off as a coincidence, but finding three (plus the juvenile) suggests that a factor other than chance is in operation.

There is only one house nearby and although the owners keep dogs they are kept locked up at all times so could not be the cause of these deaths.

Perhaps there is something peculiar about the topography of the bushland here that allows a pack of dogs to run the wallabies into some kind of trap.

Maybe the layout of the fence beside the track is such that when fleeing wallabies burst out of the bush, they hit the fence and can

then be grabbed by the pursuing dogs.

We ask, therefore, that all dog-owners who live near the bushland/suburban boundary ensure that their dogs cannot roam free.

A more sinister explanation is that human hunters might be using dogs to capture the wallabies and then dump the bodies at the end of the track.

If anyone sees people hunting with dogs in the bushland, we ask them to ring Campbelltown Council and the police immediately.

Anyone sighting koalas should ring the UWS koala hotline on 9962 9996.

Two more wallabies discovered dead

Following last week's column about the deaths of two swamp wallabies, we received yet another call to report two more deaths.

These were found 200m apart on a fire trail between Georges River Road and the river itself at Kentlyn and a kilometre from last week's killings.

We now know of five deaths at Kentlyn in a week.

The latest two were also females, one with a dead joey and the other with a live, newborn baby, about the size of a finger nail, still squirming in the pouch.

Both adults had single puncture marks in the chest, crushed ribs and matted fur around the neck, consistent with a dog attack.

It didn't surprise us then, when a caller rang to say that after seeing two greyhounds chasing a wallaby near Peter Meadows Creek. The caller had



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pursued the dogs in the direction of houses on Hansens Road.

I have now notified Campbelltown Council and hope that the animals will be found.

On a happier note, we captured yet another male koala in Spring Creek.

We had received several calls about an untagged animal but it was always in trees and too difficult to attempt a catch.

Eventually, when the koala was in a large grey gum that was visible from the local houses, we decided to set our trap.

The problem with this method is that you have to wait for the koala to come down the tree and sometimes it is in no hurry.

On this occasion, we sat in deck chairs in Jeff Hunter's front garden listening to the koala feeding.

From time to time, it gave a half-hearted bellow that

sounded a bit like a cross between a trail bike and a chainsaw and lasted about 30 seconds. By 11 o'clock it was still feeding happily in the foliage and likely to stay there for quite a while, so we packed up our chairs and left.

Jeff rang at 3am to report a successful catch and the result was an 8.6kg young male, with an unhealthy brown coat.

Its human equivalent would be a skinny 15 year old with greasy hair.

No wonder its bellow was half-hearted; Nathan and Alex, koals who also live in Spring Creek, outweigh him by 2-3kg.

He's probably only passing through and so we'd like people who see him to call our UWS koala hotline, 9962 9996 and report his progress.

Shirley is battling on

Twelve-year-old Shirley has been in the wars again.

Two small bushfires have been lit in her territory since Christmas, but fortunately she has survived yet again.

She has also had to contend with a gang of trailbikers who had constructed an obstacle course in the areas which burned.

Her adult daughter, June, also caused us concern recently when we could not receive a signal from her radio-collar despite extensive searches in the area near Kentlyn Primary School where she had been living.

When a signal disappears there can be several possible causes: either the koala has



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moved out of the area, the battery has gone flat, the aerial has been damaged, or the transmitter has been damaged.

An example of the last possibility would be if the koala was hit by a car.

Naturally such a fear is constantly in our minds until the koala is found.

So it's a nerve-racking time for us.

Consequently our radio-trackers, Lynn, Wendy and Mick, searched desperately to find a signal.

At last, after a week of searching, a faint signal was detected and to our great relief, June was located a kilometre from the school in an area which had been searched during the week.

Both June and her transmitter were in good condition so it is quite a mystery why she went off the air.

We'd love to know where she went or what happened.

Since then, June has been moving about quite a bit but heading in the general direction

of Peter Meadows Creek.

This creek, readers may remember, is the home of a small, rare, group of the endangered black chinned honey-eaters.

The area has also proved to be a very attractive area for koalas.

Not only does our radio-collared Amanda live there but we have also seen Leslie, who is Shirley's daughter from 1998, Taylor, originally from Minto Heights, and locals Kathleen and Kiera.

The area is popular with male koalas too: Tim and Greening have both been spotted there.

Then, last weekend, Kieran Griffiths sighted Janice in the area too.

Janice is the daughter of Shirley's neighbour, Irene, who lives 3.5km away on the cliffs above the Georges River.

Sadly, this special place is the same area where two free-roaming greyhounds were reported last week.

We would be grateful if people spotting either koalas or greyhounds would call us on the UWS koala hotline 9962 9996.

Wallaby kills investigated

The slaughter of native wallabies continues with two more kills reported during the weekend.

Both were found on fire-trails at Kentlyn near the scene of three other recent killings.

We were able to examine only one of the kills but, like the others, this one had wounds and saliva marks to the chest.

This wallaby however, had a hind-leg cleanly removed. We suspect that it was severed with a knife, possibly for dog-food. What is happening?

We have records of six swamp wallabies killed in the past month at Kentlyn with two others killed in the same sites during the past year.

Dogs appear to be the cause but the corpses have not been eaten on the night of the kills indicating that the dogs were hunting for sport rather than for need.

Swamp wallabies, which weigh 15 kilograms, move through the bush along familiar trails at great speed and it would take a fast dog to catch them. We suspect greyhounds are involved.

The only evidence we have however, is that two callers on separate occasions reported seeing two greyhounds chasing a wallaby near Peter Meadows Creek but this pair seemed to be hunting by themselves with no human assistance.



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Another caller reported some time ago seeing a pair of greyhounds being loaded into a car near the site of the killings at Kentlyn.

Both dogs looked as though they had been running hard.

In future, problems such as determining the cause of death of swamp wallabies will be solvable by the new Wildlife Health and Conservation Centre that was opened recently at the University of Sydney's Faculty of Vet Science at Camden.

Post mortems of the killed wallabies would reveal the cause of death and the animals' prior state of health.

At UWS we look forward to collaborating with the centre on a number of projects when it is fully functional.

At present, our veterinary problems for koalas are dealt with by Elizabeth Macarthur Agricultural Institute, Campbelltown Veterinary Hospital and Ingleburn Veterinary Hospital.

UWS hotline for sightings of koalas or dogs running free in bush: 9962 9996.

Baza buzz on koala hotline

An unexpected, but valuable, outcome of this column and the UWS koala hotline has been the reporting to us by community members of sightings of rare and unusual wildlife, and events such as the recent wallaby deaths.

Fortunately, many of the reports have been happier, such as the sighting at Kentlyn last week, by Mark Straney, of the marvellously named Pacific Baza.

This baza, also called the Crested Hawk, *Avecida subcristata*, has a small, black crest, blue-grey head and shoulders, and a white belly marked with brown, horizontal stripes.

When Mark called, we referred him to ornithologist Michael Paul for comment on the significance of the sighting. Michael's response was that before 1988 the Pacific Baza was an uncommon vagrant around Sydney,



but since then it has been seen more frequently, with a few nesting records as well.

The baza appears to be becoming a regular in Georges River bushland and has been sighted in the last few years at Glenfield, Ingleburn Reserve, and Kentlyn.

The increase in sightings of the baza around Campbelltown seem to match the increase in sightings of the koala. This may be entirely coincidental, but may also reflect some subtle change in the environment.

Community sightings may help us detect such environmental change; so remember the UWS koala (and Pacific Baza and friends) hotline - 9962 9996.

Callers report hawk sightings

In response to last week's story about sightings of the Pacific Baza, two callers also reported sighting this grey-headed hawk with its black crest and brown-barred belly.

One caller, from Bradbury, saw one in his back yard while another had a pair of Bazas nesting in the bush behind their house.

These reports are valuable because they give us an idea of the local distributions of our rarer wildlife species.

The information will help us understand how these species live and how we can help to protect them.



Unfortunately there is so much that we don't know about our bushland and its inhabitants.

We have local experts on birds (Michael Paul, Allan Leishman) and insects (Stephen Fellenberg) who we can call on to identify and record distributions of significant species but so far we don't have contacts with local reptile or frog experts who have academic interests in their fields. If there are such people who live locally we

would be pleased if they could contact us.

Our koalas have obviously enjoyed the recent rain as all our radio-collared animals have lost their brownish tinge and have developed a healthy ashey-grey colour.

We don't yet know what causes this relationship between a koala's condition and its colour.

There may be dietary reasons but we suspect that it's related to time spent grooming.

The underfur of the

koala is brown and it is possible that when the koala has to spend a lot of time eating leaves that are low in nutrients and water content, it doesn't groom itself as well as it should.

Consequently the fur becomes slightly matted and appears brown.

The koala has specially adapted claws on its back feet to assist in the grooming process.

Two toes are linked together so that they appear as one toe but with two claws.

Don't forget our UWS koala hotline 9962 9996 for any sightings of koalas or other unusual animals.

Koalas munch, people crunch

A group of residents at St Helens Park, whose houses overlook Spring Creek, were treated to a display of serious eucalypt-munching last week by koala Courtenay, who spent several days eating furiously in a grey gum at the edge of the bush.

The spot is a favourite for some of the Spring Creek mob, and over the past year Courtenay, her daughter Brittany, Alex, Nathan, and new kid on the block, Barney, have all been seen there by residents. The other Spring Creek koalas, Elle, Martine and their cubs live further down the valley towards the Georges River.

Receiving regular visits from koalas is a significant experience for residents, particularly for the children for whom it will remain a powerful childhood memory.

For the next generation of children, however, sharing a similar experience will depend on whether koala habitat remains. Unfortunately, clearing of habitat continues across the state.

A distressed caller this week reported that bushland at Wilton was being cleared beside a creek.

The owner of the land had commenced clearing on the Friday but paused after a visit from Wollondilly Council officers, only to resume the next day.

Apparently, 9000 square metres of vegetation was eventually removed.

It seems the owner is prepared to pay the council fine rather than have



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his plans thwarted.

We have recorded two koalas killed by cars on roads in the area and know that grey-gums, koalas' favourite food, grow beside the creek gorge.

It is likely, therefore, that the cleared bushland was koala habitat.

The landowner has apparently ignored two restrictions.

Firstly, the current Tree Preservation Order of Wollondilly Council requires owners of rural properties not to clear more than 2000 square metres per year without a permit.

Secondly, the clearing contravenes State Environmental Planning Policy number 44, requiring that any bushland area in which more than 15 per cent of trees are koala feed trees must be searched for signs of being core habitat (that is, a breeding area).

If core habitat is discovered, then the development application must make special allowances to ensure that successful breeding is not disrupted.

We will follow this example of allegedly illegal clearing with interest and will report on it in later columns.

If you have additional information about koalas at Wilton or Campbelltown, call the UWS koala hotline 9962 9996.

Elusive marsupials

In last week's column we mentioned that koala Courtney had been delighting residents at St Helens Park who could see her from their front gardens.

However, our radio-trackers Lynn, Mick and Wendy soon lost contact with her. On the occasions that we lose the signal from a radio-collared koala, we immediately worry that something has happened to it and we scour the animal's known area searching for a weak signal or a thrown collar.

Fortunately, after much searching Mick found her but we were unable to attempt a capture and replace the collar. So Courtney is still at large and we ask any St Helens Park resident who spots her to call us immediately by the UWS koala pager on 9962 9996.

Readers will have noticed the pager number in another article in this paper describing the project undertaken by final-year UWS science student Lisa Quarmby to find platypuses in the Nepean River. This project was suggested by Camden Council, whose logo is the platypus.

So far Lisa has scoured old records and the databases of the Australian Museum and National Parks and Wildlife Services.

One record, found in a 1981



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Environmental Impact Statement (EIS) for the development of Elderslie sand and soil deposits, refers to "The Anabranche", which is a billabong adjacent to the Nepean River near the Macarthur Bridge at Camden.

Zoologists conducting the studies for the EIS reported seeing bubble trails in the Anabranche that they suspected were caused by platypuses. The owner of the property, a Mr Nesbitt, reported that platypuses had been in the Anabranche at least until a recent drought.

We would like, to talk to Mr Nesbitt or anyone from his family about these sightings; so if anyone knows how to contact them we hope they will contact us via the pager number.

Zoologists in the same EIS reported signs of the large and striking-looking water rat beside the river. These animals weigh up to 1kg and have a tail with a white tip. They are excellent swimmers and divers and might be mistaken for a platypus. Contact us on the UWS koala (and platypus/ water rat) pager on 9962 9996.

Joey dies after car scare rescue

A new koala-crossing sign has been erected 100 metres north of the Wedderburn Gorge, courtesy of Campbelltown Council and the late Keith Longhurst.

It is perfectly sited, because last Saturday night a young female koala moved onto the road, beside the sign, into the path of a car.

Whether she was hit we don't know but Chris, the driver of a second car, seeing the first car brake, realised that something was amiss and as he passed the spot noticed something unusual.

Despite the difficulties of the narrow, winding road, Chris parked and found a eight-centimetre long, pink koala wriggling on the roadway.

Keeping it warm, he delivered the joey to Coral Jones at Wedderburn who has raised youngsters of other species.

Coral then rang us.

Our first aim was to find the baby's mother, not only to check whether she had been injured but because the baby's



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With **ROBERT CLOSE**

best chance was to be returned to its mother. With the aid of Chris and Coral's son Neil we spotted her high in a tall, slender grey gum beside the road.

Unfortunately the tree was too difficult to attempt a capture so we had to leave her and hope to find her the next day.

We then picked up the baby koala, warmly wrapped in one of Neil's socks and transferred her to the care of Pam Hindes, who is a very experienced wildlife carer.

Caring for a baby koala can make for a difficult few months.

Firstly, she would have had to maintain the baby's warmth and body contact.

The baby becomes agitated if separated from the reassuring heart beat and warmth of its carer.

Pam would have had to become used to continuous contact with the tiny animal.

Secondly she would have to provide milk at two-hourly intervals.

Young marsupials are continuously attached to the teat and so absorb a slow but continuous supply of food.

If they are forced to "binge-drink" they are likely to develop diarrhoea.

Thirdly, she would have had to provide the correct diet. This is particularly difficult for marsupials because the content of milk changes in composition throughout life.

The baby's chances of survival, therefore, were not good and it died on Monday.

There was no obvious cause of death. We are still looking for its mother.

Please report any sightings on UWS koala hotline: 9963 9996.

Two-faced river

Most of our stories are linked to the Georges River and its local creeks.

We always paint this area as a source of rich vegetation diversity that provides food and protection for a wide variety of animals, and for humans beauty and relief from the hustle and bustle of city living.

The river, however, has two faces and can change from a tranquil stream to a raging torrent in a frighteningly short time.

A local family had two experiences of the river's other face recently.

Firstly, they discovered a platypus trapped after recent heavy rains in a bucket-sized rockhole.

The animal had bleeding feet and was exhausted, so the family wrapped it in a towel intending to take it to a vet.

The platypus was slippery, however, and despite its poor condition, managed to shake itself clear and vanished into a rock cave.

The second encounter with the river was even more distressing.

The family had waded across the river, which was shallow enough for the children.

After a while, however, one of the youngsters observed that the tide appeared to be rising.

Tidal influence on the Georges River ceases at the weir at Liverpool, so the rising water was flood-water caused by heavy rain falling on the extensive upper catchment.

What a flood it was!

By the time that the family had



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gathered their belongings, the level had risen so high and the water become so turbulent that the family was unable to cross to safety.

The river, in fact, rose until it would have been over their heads had they tried to cross.

For five hours they searched the banks seeking a suitable crossing.

Eventually they found a place where they were able to make a hazardous crossing, but in retrospect realised that they should have stayed on the safe bank and waited for a rescue.

That, however, would have meant a night in the bush with no shelter.

The moral of the story is to not take the river for granted, particularly if there has been heavy rain in the district.

On a brighter note, the discovery of the platypus was a cause for great rejoicing.

We have also had a good response to our request for reports of platypus sightings in the Nepean River.

In the meantime, remember the UWS koala hotline number 9962 9996 for sightings of koala or platypus.

Signs of danger for koalas and their habitat



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Two weeks ago we reported that a koala was hit beside a new "koala crossing" sign on the road at Wedderburn Gorge, resulting in the death of a cub.

Unfortunately, the sign was only visible to the downhill traffic and the koala was hit by a car going up the hill.

The motorist should have been warned by a similar sign that Campbelltown Council had erected on the southern side of the gorge.

Unfortunately, only the words "koala crossing" and our pager number remain at the site because the picture of the koala itself was souvenired soon after being put up.

We would appreciate the return of this sign, preferably affixed to its original pole or at least left at the base.

If friends of the "collector" could put pressure on him or her to return the sign, we would be most grateful.

ABC TV viewers were treated recently to a few seconds film of our old koala Shirley and her grown-up daughter June.

The film accompanied a story about some of Steven's findings that were recently published in a book entitled *Urban wildlife: more than meets the eye*.

In our research paper, *South-eastern Sydney's urban koalas: community research and education at Campbelltown*, we analysed the number of sightings of koalas on different soil and vegetation types around Campbelltown and concluded that the

vegetation type most preferred by koalas was shale-sandstone transition forest. Such vegetation is limited locally to the area between Campbelltown's suburbs and the Georges River and is largely privately owned.

This type of forest, which has recently been recognized as an endangered ecological community, is clearly at risk of further degradation because of its proximity to housing.

For a reprint of our paper, contact Robert Close at UWS Campbelltown. Report any koala sightings on the UWS koala pager, 9962 9996.

Downside to longevity for koala

One of the most interesting and unexpected findings of our studies so far has been that once established, a koala can survive for a very long time.

Some of our old females are now at least 10 years old and still producing cubs at close to maximum rate.

The reasons for this longevity are firstly that, apart from dogs and cars, they have few threats.

It amazed us that they have survived the fires that in recent years hit Campbelltown.

Secondly, eucalyptus leaves are plentiful and easy to obtain.



This can have its drawbacks.

If a koala is ill or injured it can survive in great pain for long periods.

In contrast, ground dwelling mammals tend to be killed by predators if they are injured or sick.

Such a death would be quick and is part of the ecosystem.

We have seen a number of examples of koalas living for long periods in great discomfort.

A case occurred

recently when the dogs of a grazer at Colo Vale alerted him to a dead koala in the middle of the paddock.

A National Parks officer passed the body on to us and we discovered a huge bony growth the size of an apricot protruding from the side of its face.

This is a type of bone cancer that seems to be quite common in koalas.

The animal's teeth showed no wear on the teeth on the tumour side but were blackened with gum leaf oils.

The row of teeth on the other side of the jaw was worn and clean.

Parts of the skull were unnaturally thin as though the tumour

had been robbing the rest of the skull of bone-building materials.

Clearly the koala had been suffering for a considerable time.

The inner side of the tumour was also blackened with eucalyptus oils, suggesting that the bony mass had been projecting into the mouth cavity.

The entire inner cheek must have been a massive ulcer and the pain enormous.

The study of this dead animal provided us with valuable information.

Call the WWS koala hotline 9962 9996 if you spot a koala either alive or dead.

Young male recovers from broken jaw

Many interesting wildlife events have happened recently, some good, some bad.

First the bad: another dead swamp wallaby was reported last week on a Kentlyn fire trail and a young male koala was hit by a car on Heathcote Road.

Fortunately, the koala survived and was taken by WIRES to Taronga Park Zoo where he's been receiving treatment for a badly broken jaw, cracked shoulder blade, injured claw and extensive bruising.

Amazingly, he's fighting back and trying to eat leaves despite his injured jaw.

Readers may recall that in last week's column we described another koala that had continued to chew leaves on one side of its jaw despite a massive bony tumour and cheek ulcer on the other side of its mouth.

Life can sometimes be very hard on wildlife and koalas must sometimes be able to put up with immense pain.

On the good news side, we keep receiving reports of platypus sightings in the Nepean River, particularly between Douglas Park and Menangle.

We hope to organise a dusk and dawn search soon to verify these sightings.

Good news from Kentlyn was that Shirley's grown-up daughter, June, now has a second cub.

We discovered the youngster,



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about six weeks old and the size of a sausage, in June's pouch when we were changing her radio collar.

Rather more advanced was Amanda's cub, which is now dangling its feet out of its mother's pouch and will soon be riding on her back.

This practice makes the cub vulnerable to predators, especially when its mother comes down to the ground to change trees.

Cubs on their mother's backs are also vulnerable in the tree tops especially to large owls, the biggest of which is the powerful owl.

These huge, impressive birds prey on tree-living mammals such as possums, gliders and young koalas.

Although the owls are rare and classified as vulnerable in NSW, we were lucky enough to spot one recently roosting close to our old koala, Shirley.

This puts us in the tricky position of wanting our new crop of koala cubs to survive yet also wanting the powerful owl to take its natural place in the Georges River bushland.

Please report all koala, platypus and powerful owl sightings on the UWS koala hotline 9962 9996.

Strange snake ritual

We've seen some very strange things on the edge of the Campbelltown bush but none stranger than the sight of five dead but neatly coiled snakes arranged in a square.

Three of the snakes, two adults and one juvenile, were diamond pythons.

Although these snakes are found in sandstone, they are very difficult to spot in the bush so were almost certainly pets that had been killed and placed carefully in the bush at Wedderburn Gorge.

The other two were carpet pythons which are not found naturally in the area and also must have been pets.

All had been in excellent condition prior to their deaths.

So what was going on?

Why would anyone kill such beautiful animals especially



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when they have a street value of about \$5000.

And why would anyone leave them carefully in the bush as though they had been part of some kind of ritual?

Nearby, in a black garbage bag, were the remains of a slaughtered sheep or goat but we think this find was a coincidence.

We have seen other such dumpings of sheep and goat offal in the gorge, presumably the result of backyard slaughtering for family meat supplies.

This bag and its grisly contents disappeared a few days later.

We suspect that the death of the snakes has something to do with the current National Exotic Reptile Amnesty

which runs from March 29 to May 24.

This amnesty allows people possessing reptiles which are not from Australia to hand them in and so avoid potential fines of thousands of dollars or prison sentences (Ring Amnesty Hotline on free-call 1800 684 447).

Perhaps the reptiles' carer didn't realise that the reptiles were not exotic. Please call us with any related information.

Exotic animals were reported in the bush this week when three greyhounds, one muzzled, scared a cyclist on a fire-trail beside Peter Meadows Creek near Hansens Road, Leumeah. These dogs can kill wallabies, koalas and other bush animals. We ask the owner to take special care with their control. Please report any koala sightings on the UWS koala hotline 9962 9996.

Spotter discovers yet another koala

We received a call last weekend from regular koala spotter Kieran who strolls the fire-trails of Ruse and Kentilyn: he'd sighted another untagged koala near Peter Meadows Creek.

Kieran also mentioned that he'd spotted three wallabies and also a Pacific Baza, the uncommon barred hawk that we discussed last month.

Kieran's route takes him beside part of the section of land called the Edge Scenic Protection Land.

This area includes land east of Junction and Hanson roads as far as the proposed route of the Parkway, a potential road that would run between housing and the Georges River from Campbelltown to Liverpool. Part of the home-range of one of our radio-collared koalas, Amanda includes the



with ROBERT CLOSE and STEVEN WARD
fifth sector of the Edge Scenic Protection Land.

We originally captured her after she was seen crossing Junction Road from Leumeah High School in 1997 and she has lived in adjacent bushland ever since.

Since then we have since tagged several koalas in adjacent areas beside Peter Meadows Creek but have lacked the resources to fit them with radio-collars.

Instead, we have relied on members of the community, like Kieran, to spot the

koalas and report the colour of their ear tags.

We were surprised, therefore, to read Yvonne Campbell's letter (*Advertiser*, May 12) in which she stated that "those who think they know all about koalas ... are a little misinformed".

In seven years of living in the Scenic Protection Area she had not seen "a koala or any other significant wildlife".

We invite Yvonne, therefore, to come radio-tracking with us to locate Amanda somewhere in her home range of 30 hectares.

Without the radio-collar we could not guarantee finding her on any given occasion.

■ UWS koala hotline 9962 9996.

Keep your eyes open for koalas

Residents of Rosemeadow met recently with Campbelltown Council officers to discuss the Draft Plan of Management of Noorumba Reserve.

This 60 ha reserve lies on the southern edge of Rosemeadow on the western side of Appin Road.

It is part of the Menangle Creek catchment which drains into the Nepean River, and is one of the largest publicly owned areas of Cumberland Plain woodland in South-West Sydney.

One-hundred-and-fifty-nine native plant species have been found on the site and 39 of these have regional significance.

The soils of the area are mainly shales which are more fertile than Sydney sandstone soils, but they are of moderate to high risk of erosion and therefore are vulnerable to damage from human-based activities such as off-road vehicles and horse and cattle grazing.

Cumberland Plain woodland is becoming increasingly rare in the Sydney basin and has been declared a threatened ecological community.

The dominant tree species is the forest redgum, eucalyptus tereticornis, which is a favourite food for koalas.

Unfortunately the Campbelltown koalas get little access to it because most of the shale areas have been cleared, first for agriculture and later for housing.

The whole reserve should be



excellent koala habitat, but to date we have no records except for a report of a koala crossing Appin Road 200m south of the Rosemeadow roundabout.

We predict, however, that breeding females will eventually arrive in the reserve.

Their arrival will depend on the breeding success of females breeding beside the Georges River at St Helens Park.

Shirley, our 13-year-old female from Kentlyn is certainly doing her best for the koala population.

Her latest cub was sighted for the first time this week and she has produced a cub almost every year for the past decade.

That means that she could have five daughters and that most of those would have produced young as would many of the grand-daughters.

A few quick calculations show that Shirley and her potential offspring could have produced up to 26 females and 26 males.

Although some of these will be killed by dogs, powerful owls, cars, fire and drought, a proportion will establish in unoccupied bushland such as at Noorumba.

Report sightings to the UWS koala hotline 9962 9996.

Wombat killed but koala sighted

The two new koala crossing signs at either end of the spotted gum/ironbark forest on Appin Road just south of Campbelltown were not enough to save a wombat last week.

It was reported to us as a koala and indeed did look like one as it lay dead beside the road.

Koalas and wombats have many similarities which reflect their close evolutionary relationship.

Wombats are not common close to Campbelltown and we have had only two reports in recent years, one from Minto Heights and the other from Wedderburn.

This animal was a female but with an empty pouch and no recent signs of breeding.

It was large, however, and could have seriously damaged the vehicle that hit it. Swerving is not a safe option,



particularly in that section of road, so drivers should be especially watchful for dark shapes beside or on the road.

Another interesting report came from lads who spotted a platypus beside O'Hares Creek, the unpolluted tributary that meets the Georges River at the Woolwash and supplies 70 per cent of the river's water.

The valuable factor in this particular sighting is that the lads observed the platypus using a burrow.

This means that we now can determine what aspects of that part of the river are important for breeding.

A third report came in of a koala with ear-tags sitting in the middle of Hansons Road in Minto Heights.

Quick-thinking motorists stopped and protected the koala until it could make its way off the road to safety.

We are always excited to hear of a sighting of an ear-tagged animal because this tells us a lot about the movement and survival of our koalas.

This animal turned out to be Jack, a young male that we had captured as a juvenile in September 2003.

Contact the UWS koala hotline on 9962 9996 if you spot Jack or any other koala.

And visit our stall at Riverfest on Sunday.

Riverfest reminder of animal river homes

Riverfest was a great success last Sunday at Koshigaya Park with hundreds of people enjoying the carnival atmosphere and celebrating Campbelltown's close relationship with Sydney's two major rivers: the Georges and Nepean.

All the local environmental groups put on displays to demonstrate how we can protect the rivers and benefit from our links with them.

There were also many environmental activities for the children.

Our Koala Research Unit put on a display of some of our research findings and we were busy answering questions from 10am to 4pm, playing spot the koala with children and showing how a forensic examination of koala skulls can reveal much information about the animals' lives.

Several people gave us new information about local koalas and other native animals and many told us that they were regular readers of Mac's Koala Club column.

We also received requests that the column be published regularly in the *Camden Advertiser* and *Wollondilly Advertiser*.

Among the many fascinating stories was one from two visitors who were camping by the Georges River at Ingleburn in the 1960s when a man with a firearm arrived and began shooting, presumably for their furs, the large and beautiful water rats that lived there.

The shooter remarked to our



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visitors that "water rats aren't as common as they used to be".

Today the water rats have completely disappeared from the river or at least are so uncommon that we have had no recent reports.

The shooter seemed not to realise that he was part of the problem!

How many other users of the rivers and the associated bushland are destroying, without realising it, the very thing they enjoy?

Litterers and trailbike riders would clearly fit this category.

Another interesting story told to us at Riverfest was that during the 1970s a pharmaceutical company, Merck Sharpe and Dohme, maintained a koala enclosure at their research establishment on Campbelltown Road.

If any reader can shed some light on this enclosure we would be most grateful to hear from you. Please call Robert Close on 4620 3203.

In particular, we would like to know what happened to these koalas and where they came from.

If by chance they escaped into the wild they may have contributed to our current koala population.

For sightings of koalas – and water rats and platypus – call us on our UWS koala pager hotline, 9962 9996.

Platypus search unsuccessful

The platypus may be on the Camden Council logo but until recently the status of the animal in the Nepean River was unknown.

UWS Campbelltown science student Lisa Quarmby undertook a third year project to determine the distribution and history of the platypus in the region.

Official records were scanty, so Lisa prepared and distributed a poster asking for information in Camden.

She also contacted the *Camden Advertiser* who ran an article on her search.

The response indicated that platypus were sighted regularly in the 1950s and '60s and, occasionally, later.

Of particular interest were several recent sightings by canoeists in the Nepean River between Douglas Park and Menangle.

One report was of a platypus only two metres from the canoe as another animal was sighted on the bank.

At this stage we called in Dr Tom Grant, who has been studying platypus for 30 years and wrote the book *The Platypus* (UNSW Press).

So at 7am last Sunday, we met Tom at the Douglas Park causeway and canoed quietly down the river for six kilometres searching for any sign of movement.

Although it was numbingly cold and spirals of fog floated up from the river, conditions for searching were otherwise perfect.

The water's surface was so still that even the



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slightest movement would have been noticed.

The river, its rocky sandstone gorge and the riverside vegetation were particularly beautiful as the rising sun provided contrasting areas of light and shade.

An old swamp wallaby watched us quietly from the bank while black duck, coots, kingfishers, cormorants and darters occasionally caused distracting ripples.

Signs of wombats were visible on the bank and Tom was given a close inspection of a sea-eagle.

But there was no sign of platypus.

Tom said conditions were superb for platypus and a similar trip down the Wollondilly River would have revealed several animals.

He concluded that the platypus must be in low numbers in the Nepean and that further searching would best be undertaken by the community.

That is, anyone who spots a platypus can perform a vital task by taking special notice of landmarks and report to us so the sightings can be mapped.

This will allow us to focus on areas where sightings are frequent.

Details: UWS Koala Hotline, 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, June 16, 2004

Dogs blamed for death of wallaroos

Residents at Eschol Park were astounded recently to discover a wallaroo trapped in their backyard swimming pool.

Like all kangaroos, wallaroos, or hill kangaroos as they're also known, are good swimmers and propel themselves by sweeping their powerful tails to and fro.

Wallaroos are big animals and the males can grow to weights of 50 kilograms. They prefer rocky ridges where there are caves and overhangs to protect them from the heat of summer.

Like the koala in the Campbelltown region, the wallaroo appears to be increasing in numbers.

Mount Annan Botanical Garden supplies apparently suitable habitat for wallaroos, as perhaps 30 of them now shelter on the main ridge and come down to feed on the grassy slopes.

Although UWS mammal surveys of the garden in 1987-88 detected only one footprint, numbers have grown steadily since then and the charcoal-coloured males and ashey-grey females can now be seen regularly at dawn and dusk.

However, staff at the garden have been distressed by finding dead wallaroos in the grounds, clearly killed by dogs.

Ten have been killed over the last year with the last only two weeks ago.

Although houses now line a considerable section of the garden's western boundary, staff suspect that



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the dogs are coming from the direction of Menangle.

In particular they suspect that two large cattle dogs are the ring leaders.

Efforts to capture these dogs have failed and the animals are reported to be very cunning and suspicious.

Other reports of roaming dogs at Menangle come from Brian Trench at the Department of Education's field studies centre.

Brian reports regularly finding dead swamp wallabies in the Nepean River at Menangle.

It appears that the wallabies had also been killed by dogs. Brian suspects that the wallabies had ventured into the river in the vain hope of escaping their pursuers.

So we ask yet again that owners of dogs ensure that their animals are properly restrained at night.

Research has demonstrated clearly that unrestrained dogs will roam much more often and more widely and be far more destructive than their owners suspect.

With the continued spread of housing planned for the Menangle area, the problem will only grow worse unless the community appreciates the problem and takes action.

If anyone can shed light on the dog pack please call us on the UWS koala pager 9962 9996.

River pipe dream back in full flush

The Georges River pollution issue has been clouded beyond recognition following another week of claims, counter claims, accusations and denials.



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That sentence comes from a series of reports in a Liverpool newspaper in 1981 by this paper's departing editor Eric Kontos.

The problem then was salvinia weed, all the way from Liverpool to Glenfield, growing on the tertiary-treated nutrient emptied

from the Glenfield sewage plant. Eric advocated the construction of a pipeline to take the effluent to the offshore outfall at Malabar. His advice was heeded. The pipeline was built, and for a period the quality of water improved. However the problem has

returned with weed and algal growth in the same section of the river now caused by nutrients and sediment from stormwater.

Many people do not realise that every gutter and storm drain from Appin to Glenfield, including every street in Campbelltown, drains into the river.

Think a moment of the massive amount of oil drips, cigarette butts, dog droppings, lawn clippings and fertiliser, paper rubbish, food scraps, dead leaves,

sediment from building sites and erosion that finishes up on the streets and then flows into the river. In addition there is the septic overflow from the unsewered areas along the river.

All these things, once in the river, become nutrients that stimulate the growth of water plants and algae.

The green sludge is unsightly but when the plants and algae die they decompose and in the process use up oxygen. This lack then kills fish,

tadpoles and shrimps that are important components of the river ecosystem. We hope that on Eric's return to Liverpool he continues to work for the health of the Georges River.

We thank him for his support for our koala research, which included the Advertiser's financial assistance for Steven's PhD scholarship and for allowing us to publish Mac's Koala Club column each week and to display our UWS koala pager number 9962 9996. Eric, we wish you well in your new position.

Mining poses danger to river

In last week's column we reported discovering some articles on the Georges River by departing editor Eric Kontos in a collection of old local newspaper cuttings.

Among the collection, dated July 30, 1980, was an article entitled *Mine dams 'likely to wreck river'*.

The article quoted a park ranger, Keith Longhurst, as saying that "further interruptions to flow by coal mines in the Appin area would place the Georges River at risk".

Keith, who died last year, was a life-long defender of the river and its associated plants and animals.

The Keith Longhurst Memorial Koala Fund was set up in his name at UWS to accept tax deductible donations for koala research.

Keith was referring, in the 1980 article, to the flow in the Georges River being interrupted by the construction of dams for washing coal and for storing soiled water.



The greatest effect that the mines have had on river flows, however, has been to create cracks in the river bottom through which water vanishes.

The cracks are generated when the roofs of wide chambers left in the long-wall mines after removal of the coal are allowed to collapse in to fill the chambers.

Although these chambers are hundreds of metres below the surface the effects of so-called "subsidence" can be felt at the surface.

Housing foundations and surface rock can be damaged.

Damage to flow in the Georges River was first noticed near Appin.

To maintain river flow the mining company, BHP Billiton, was at one stage pumping in more than the equivalent of an

Olympic swimming pool of water each day.

Some of the water was drawn from the mine's recycled water but most was Appin town water from the Cataract Dam.

The mine now claims to have sealed the cracks with grouting.

Future mines are planned beneath the Nepean River including the area where three weeks ago we investigated several recent sightings of platypus.

This is likely to disturb silt and aeration levels in the river that could have significant effects on the invertebrate food of the platypus.

Please report any sightings of platypus to us.

There have been relatively few koala sightings in the last few weeks.

Airds has been particularly quiet for many months so we make a special appeal for our spotters there to call us on the UWS koala pager 9962 9996 when you see a koala.

Nature's vacuum cleaners

Echidnas or spiny ant-eaters are reported to us regularly from around Campbelltown.

They are special animals because, like platypus, they are monotremes – egg-laying mammals.

Many people tend to think of them as a kind of spiky vacuum cleaner for ants and termites.

However, they have other important roles in the bushland community.

Researchers spoke last week about these other roles at a conference of the Australian Mammal Society held at Tanunda, South Australia.

Echidnas apparently operate like small ploughs, turning over the soil in their quest for ants and termites.

This ploughing is vital for the sprouting of certain seeds and for the spread of a important fungi which are used by the plants.

The fungi interact with the roots of the plants and in a mutually helpful manner increase the uptake of phosphorus by the plants. In particular, species of



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the spider orchid sprout preferentially in soil disturbed by echidnas.

The researchers also discovered that the echidnas spread the tiny seeds of the orchids as they ploughed their way through the soil.

The underside of the echidna is quite hairy and the seeds stick to the hairs.

So when the echidna disturbs the seeds dropped by the parent plant it then carries them and the associated fungal spores for several metres before they drop off and sprout in a fresh place.

Many other species, such as the small wallabies known as bettongs, also turn over the soil and disperse seeds and fungi.

Most of these small mammals, unfortunately, have become

extinct or greatly reduced in numbers on the mainland, so the importance of the echidna as a digger has increased.

We used to have bettongs and other small, digging mammals around Campbelltown but now only the bandicoot and the echidna remain.

Sadly, the bandicoot is very scarce so the responsibility rests with the echidna.

Please keep an eye out for them particularly on the roads.

Watch out for koalas too.

Another young male koala in peak condition was hit on the Picton Road and had to be euthanased.

Details: UWS koala pager, 9962 9996.



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Mysterious case of thirsty Louise

As Barry Allen drove up Wedderburn Gorge his headlights picked out a small koala.

When he tried to shepherd it off the road, however, the koala moved towards him as if to say "pick me up and help me". Barry obligingly wrapped it in a pullover and packed it warmly in a clothes basket.

He realised, however, that this placid behaviour was abnormal and called the Koala Hotline.

We soon arrived and recognised the koala from her eartags as Louise, daughter of Martine, one of our radio-collared females.

Louise left her mother last November and has been seen occasionally on the opposite side of the Gorge to her mother.

We agreed with Barry that Louise's behaviour was strange – a young, healthy female would have been scratching, biting and wriggling.

The first thing we did was to offer her water from a teaspoon as we've often encountered young koalas that have become dehydrated during dry conditions.

Louise slurped the water down and to our surprise reached out with her sharp claws to pull the hand and spoon closer.

Whenever we stopped offering water, the claws would reach out towards us and demand more.

At first we thought this thirst merely indicated the extent of her dehydration, particularly as she was also happily eating eucalyptus leaves.

However, the thirst continued unabated all day, so we decided that she was likely to have a kidney problem.

Kidney disease is a common ailment in koalas and generally fatal.

Consequently we took her to Campbelltown Veterinary Hospital where Louise was given a thorough check-up.

Her kidneys were palpated for signs of swelling or sensitivity to touch (no problems), her temperature was taken (a little low), and a blood sample was taken and analysed.

These values were compared to normal values published for koalas and then discussed with the on-call vet from Taronga Park.

Finally an antibiotic and solutes were administered and Louise was sent home with some Vytrate, to add to her drinking water to prevent dilution of her blood components.

At last inspection, Louise was eating well but still drinking heavily.

We can only hope that her condition is caused by something that will respond to antibiotics or a change in food species.

Fortunately she is young and otherwise healthy.

Our thanks to Barry and his family for calling the UWS koala pager, 9962 9996 and to the vets for their help.

Campbelltown Macarthur Advertiser, Wednesday, July 28, 2004

Note:

No column published on this date

We have lost lovely Louise

Our last story described how teenager koala Louise approached a motorist at Wedderburn Gorge as though asking for help.

We later discovered that Louise had some kind of kidney ailment which gave her a huge thirst.

For an animal that normally obtains all its water from its food, or from dew or rain licked off the leaves, this thirst was most unusual.

Strangely enough, Louise's mother, Martine, also approached a motorist, in that case a motorcyclist, at the same place and at a similar age back in October 1998.

The motorcyclist popped Martine in his sports bag and took her home then called us.

We checked her over, gave her two ear tags and released her near the creek beside Wedderburn Road.

Some years later we found her again and have been radio-tracking her for the last two years.

Consequently we know that she is Louise's mother and also that they separated last November when Louise was about 12 months old.

After almost two weeks of care, unfortunately, Louise, lost her battle.

We had always hoped for a recovery because she was eating well and tests on her urine conducted at Campbelltown Veterinary Hospital showed that her kidneys were working to some extent.

The experienced koala carers that we had contacted, however, all responded with despair when we mentioned kidney problems.



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Moreover, researchers from the University of Adelaide reported that in South Australia, 10 per cent of all captive koalas and probably the same proportion of wild koalas develop kidney failure and that "the disease has a zero recovery rate".

We hope that a post-mortem examination will provide more details of Louise's illness.

Understanding the problem is important because several local females from the Campbelltown population have run into trouble at the same age.

It seems that young females establish territories in bushland close to their mothers.

If that new area lacks the right combination of eucalypts then their leaves may produce too many poisons for the koalas' livers and kidneys to cope.

Life, however, goes on: a caller rang in this week to report seeing Martine at the gorge.

A small hairy paw was dangling out of Martine's pouch indicating that a replacement for Louise will soon be released into the gorge.

**Remember our
UWS koala pager
number 9962 9996.**

Bait cuts down wait

Meaghan and Jason Baxter from Appin had an interesting tale to tell at school recently.

Their rose garden had been ploughed up by something that dug tunnels in the soil and made adjacent runways through the vegetation.

Margaret Cameron, a neighbour, had called us to see if we could offer any suggestions.

Three years ago, Margaret had found a koala in a tree in her front yard.

On that occasion we captured the koala, Neal, ear-tagged him and released him in nearby bushland.

We've not encountered him since but hope that he'll turn up some day.

We were intrigued to hear of the Baxters' problem so we took some wire box-traps out to investigate.

We didn't have long to wait. After baiting the traps with peanut butter and bread, we found on the very next morning, a small, chocolate-brown, female rat with



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a short, brown tail, dark eyes, and dark feet.

This beautiful animal has the common name of swamp rat, but we prefer its other names: tawny rat, or velvet-furred rat or its scientific name, *rattus lutreolus*.

Many people are unaware that Australia has about 60 species of native rats and mice.

Unfortunately, the introduced mouse, black rat and Norway rat give our native species a bad name.

Most of our native mice, like *rattus lutreolus*, are not a health problem for humans.

It was quite unusual to find a swamp rat several hundred metres from the bush.

Normally they live in dense grassland and carve their tunnels through the vegetation by cutting the grass stems.

Each female has its own, non-

overlapping territory of at least 0.2 hectares and makes a nest in a burrow which can be a metre deep.

So it is likely that all that digging was being done by one tiny rat.

We released her in nearby bushland into a rabbit burrow surrounded by thick grassland.

We have found only one other local colony, and that is beside Victoria Road, Wedderburn.

We are keen to learn of any others and to plot their distribution in the district.

So if anyone sees the distinct, intricate runways in thick grassland give us a call on the UWS koala pager 9962 9996.

But don't call us if you see a rat with a tail longer than its body – that will be the introduced black rat.



CLEARED . . . Koala trackers believe campers unwittingly destroyed this section of koala habitat in Kentlyn.

Go lightly on bush

Each year when we change the transmitter batteries of our radio-collared female koalas, we also like to catch their almost independent cubs.

We can thereby give the cubs their ear tags at the same time and so avoid stressing the koalas twice each year.

So this week it was 10-year-old Lyn's turn and fortunately she was in a tree from which we could flag her down without our having to climb the tree.

Such an easy catch was a good thing for Lyn and the tree-climber.

Sadly, Lyn's cub was nowhere to be seen.

Lyn still should have been suckling her cub, but neither of her teats was enlarged, indicating that the cub had not suckled for some time.

Lyn herself weighed only 8 kilograms, almost 1 kilogram lower than her heaviest weight.

Perhaps Lyn is suffering from the drought and was unable to extract enough nutrients from the



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leaves to support both herself and the cub.

To survive, wild animals need bushland to be in the best possible condition. However, unwitting people in the bushland at Ruse-Kentlyn have damaged Lyn's bushland - two large areas had been cleared to make a sort of camping area. Trees had been hacked down, underbrush cleared and there were chairs and a lounge, fireplaces and a garden shed all 50 metres from a fire trail and 300 metres from Old Kent Road. We have nothing against cubby houses in the bush providing they're made from dead, natural vegetation found at the site. We ask all who use the bush to consider their impacts and strive to reduce them.

UWS koala pager: 9962 9996.



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Watch out for diprotodontids

B iologists who study koalas take great care to avoid being bitten. The jaw muscles of a koala are large and the upper and lower incisor teeth meet in such a way that great pressure can be concentrated on a small area.

If that small area happened to be your finger then you would be lucky to escape without a broken bone.

There are only two lower front incisor teeth and these protrude longitudinally.

Between these teeth and the grinding molar teeth on the lower jaw is a significant gap called a diastema.

This arrangement of teeth is shared by wombats, kangaroos, possums and gliders and the extinct, giant diprotodonts (like the statue *Esméralda* in the Campbelltown City Art Gallery's sculpture garden).

In fact, all these living and extinct marsupials are called diprotodontids because of their teeth structure.

So when we captured a new male koala, Lynchie, at Kentlyn last week, we looked into his mouth with great care.

We needed to assess the wear on his molar teeth to determine his age, which turned out to be at least seven to eight years.

This is a good age for a male koala and we wonder whether he may have been displaced from the breeding areas by younger and fitter males.

August is the time when male koalas sort out their territories so there should be a lot of bellowing and movement going on all along the river.

The young koala, Jack, is still being spotted in the Ben Lomond Road / Hansons Road area.

Last week dogs forced him onto a letterbox before he was rescued by locals.

Jack was soon the focus of a great deal of local attention and the evening will remain a significant one for all the children lucky enough to have seen him.

We must remind dog owners to confine their dogs at night and to investigate any barking.

Young animals like Jack are more likely to be damaged by dogs than are older, experienced koalas like Lynchie. We also ask that motorists be doubly careful for the next months while the male koalas are roaming about. Remember to report sightings on the UWS koala pager, 9962 9996.

Why koalas are notable



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When Shirley's grown-up daughter June appeared near the pedestrian crossing at Kentlyn Primary School last week with her new cub in the pouch, she naturally attracted a lot of attention and excitement.

Many biologists who study other types of organism often resent the disproportionate attention paid to the koala.

These researchers consider that their own favourite organisms are just as important in maintaining the health of bushland and therefore should be protected in their own right.

It's true that many organisms play important but unpublicised roles in nature.

There's the scat moth, for example, that lays its eggs in koala faecal pellets.

The eggs hatch into small larvae that eat the pellet from within and aid in the release of nutrients into the soil where the trees (and koalas) can reuse them.

Given that a single koala can produce 130 pellets per day, that's a lot of nutrients.

Without insect assistance, the pellets can remain intact in the bush for several months.

Then there's the beetle-like larva that eats the koala pellets from the



FAMILY VISIT . . . June and her new cub dropped by Kentlyn Primary School last week. **Photo: JONATHAN NG**

outside when they are moistened by rain or dew.

Another interesting species is the koala tapeworm which is the koalas' only known internal parasite.

From five to 30 of these tapeworms seem to live happily in the intestines of almost every koala without causing their host any significant problems.

The disproportionate attention given to koalas, however, is justified because, being so unique and recognisable, they remind people that bushland is important and if that bushland is threatened then passions are raised.

The koala therefore doubly protects the existence of low profile species like the koala tapeworm and the scat moths.

History of arboreal activists

Koalas have played significant roles in most of Campbelltown's major environmental battles since 1986.

The first fight was between the developers, Yap Yan Pin, and local conservationists over a proposal to build houses beside the scenic O'Hares Gorge at Wedderburn.

Koalas had recently been discovered in the vicinity and the community responded dramatically, with 15,000 people signing petitions and Peter Garrett threatening to lie down in front of the bulldozers.

The battle raged for years and we at the University of Western Sydney became involved in 1990.

At that time koalas were known only from Wedderburn and they were thought to be the only "disease-free koalas" near Sydney.

We set out to discover the number and distribution of the koalas, their reproductive, genetic and disease status, their longevity, causes of death and the important components of their habitat.

As our knowledge has



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increased, we have been able to provide increasingly relevant information for resolving environmental disputes.

When an international airport was suggested for the Holsworthy Firing Range, we were able to predict the effects on the koala population.

More recently, our data were used in the Land and Environment Court when Campbelltown Council halted a large development plan for bushland at St Helens Park, beside Spring Creek, where several of our radio-collared koalas reside.

The stories of how the community took part in these environmental battles and in the current fight to prevent damage from long-wall coal mining to the Georges and Nepean Rivers will be told and discussed at an Environmental

Symposium, *A History of Environmental Activism*, being run by the Campbelltown City Bicentennial Art Gallery this Saturday, September 11 from 10am to 3pm.

Leon Warren will talk about the Holsworthy Airport campaign, Verlie Fowler will discuss the St Helens Park development, Pat and Barry Durman will describe the problems arising from long-wall mining and we will discuss the role that the community has played in making the koala a potent factor in environmental disputes.

Everyone is welcome to attend.

To book tickets for the Symposium (\$10 includes a barbecue lunch) call the art gallery on 4645 4336.

Meanwhile the young koala, Jack, has been sighted again this week at Minto Heights, while a female with a cub and the older male, Newman, appeared at Kentlyn.

Please report koala sightings on the UWS pager 9962 9996.

Newspapers recall the historic battles

At the symposium *A History of Environmental Activism* held at Campbelltown City Bicentennial Art Gallery on Saturday, we were reminded repeatedly of the many battles that the Campbelltown community has fought over the years to retain our marvellous bushland resources.

What emerged from the talks was the dedication, time and personal expense that people have committed to the different causes.

It was also obvious that the role of local newspapers was important in reporting these battles and also as a historical record.

Several of the talks were illustrated by clippings from the newspapers.

As time goes on and the central figures in the battles die or move out of the district, the articles are likely to become the major historical sources.

In addition to the talks, displays were set up by the many environmental groups that work in the district.

For our display, the UWS Koala Research unit featured the stuffed koala Roger who has played a small role several local environmental issues.

Roger was killed by a vehicle many years ago beside Wedderburn Gorge.

He then served briefly during the filming of our video *Koala Tales* (copies still available) to illustrate the dangers of vehicles to koalas.

Roger then went to a taxidermist (R. Carris) who prepared the mounted specimen.

Since then, Roger has attended



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numerous schools, displays, Riverfests and seminars but his greatest moments were when he took part in the campaign to stop the building of the airport at Holsworthy.

A special funeral stand with handles allowed him to be carried in processions to publicise the effects that the proposed airport would have on local koala populations.

Leon Warren's talk on Saturday on the history of the airport battle brought all the memories flooding back.

He reminded us, however, that the Badgerys Creek airport is still a possibility and if built would cause major air pollution difficulties.

■ Talking of koala deaths at Wedderburn Gorge, we went out to the gorge recently to discuss ways of allowing koalas to climb to safety up the steep rock face beside the road.

Campbelltown Council is securing the rock-faces with rock bolts and concrete and wanted our ideas.

We suggested a combination of wire netting and access poles to allow koalas to escape from the narrow road.

Time will tell how effective the methods will be.

Remember our koala pager number: 9962 9996.



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2/19/04

From high in his tree, a male koala peered down at the humans gathered beneath. He'd seen plenty of these people during the half-dozen years that he'd been wandering around the Minto Heights bushland, but none of them had even noticed him in the tree-tops.

This time, however, a flag on a long pole fluttered up to meet him and flapped about his head in a most uncomfortable way. To avoid the flapping, he began to climb down the tree, but then noticed that the eyes of the people beneath were fixed on him.

Despite the annoyance of the flag, its flapping seemed less dangerous than all those eyes beneath.

So he ignored the flag and pushed past it to the upper branches of the tree.

To the koala's relief, the pole and flag could no longer reach him and the people beneath finally left him in peace. Later in the day, one of them returned and spent some time at the base of the tree but ignored the koala high in the foliage.

Dusk fell and at 10pm the koala decided it was time to change trees.

On reaching the ground, however, he found a barrier surrounding the tree.

This barrier was too high to see over, so the koala paced his way around it seeking a way through. At last he found a gap in the fence and plunged through it only to find himself trapped in a large wire cage. Two bright lights approached and he soon found himself in the darkness of a hessian sack. Soft voices reassured him and firm hands lightly but firmly restrained, weighed and measured him.

Two fleeting moments of pain resulted in eartags being inserted in each ear.

Then to his relief the koala, now named Marshall, was returned to his tree to continue his life's adventure.

We hope that people will report Marshall's movements to UWS koala pager 9962 9996.

ROBERT CLOSE and STEVEN WARD

Few koalas enjoy life in the unspoiled bush

By **ROBERT CLOSE**
and **STEPHEN WARD**



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When most people think of koalas in the bush, they imagine the animal in unspoiled woodland with clean creeks and wildflowers.

Unfortunately, our Campbelltown koalas often live among damaged vegetation.

The young female, Janice, seen for the first time with her six-month-old cub, looked down last week on a group of people cutting down saplings close to the creek beside Peter Meadows Road.

They were cutting down saplings to make paths for trail-bikes and daubing the cut trunks with purple paint, apparently as markers.

Such wanton vandalism should be reported to Campbelltown Council's rangers immediately on 9963 1621.

Poor old Shirley, now almost 13,

was also under pressure in her area beside Georges River Road.

There were 11 fires started last week in her 10-hectare territory.

Fortunately she escaped, just as she has done for the many fires that have been lit in her area since we have been following her.

It was time to change her radio-collar and several students from UWS Hawkesbury helped as part of their animal science degree.

They found Shirley in a privet tree. Privet is a noxious weed and the area where she was sheltering was full of a variety of weeds.

The only good thing about privet is that it is a small tree and we were able to persuade Shirley to climb down fairly easily.

Shirley has been caught so often

over the years that she usually ignores us when we try to catch her.

We were afraid that the drought and her advancing age might have affected her but her weight was a healthy 8.5 kilograms and her colour, though a little brown around the head, was generally good.

Her body condition, as measured by the bulge of muscle on her shoulder blades, was also good, so it was no surprise then that she had a tiny baby in the pouch.

The joey was only about 25 millimetres in length, making it about a fortnight old.

Counting back a further 30 days for the gestation period puts the date of mating at early August.

The birth would have probably been the first for the season.

■ Remember our UWS koala pager number, 9962 9996.

Protection is good news for koalas

Last week's *Macarthur Advertiser* revealed that 461 hectares of bushland beside the O'Hares Creek Gorge at Wedderburn had been given official protection by being included in the Dharawal State Conservation Area, an important step for protecting wildlife and the gorge.

We first heard that an announcement was likely a few weeks ago when a staffer from the office of Environment Minister Bob Debus rang to ask whether we could provide a koala for handling at a media event to announce the transfer of land.

Unfortunately this was not possible as we now have only one radio-collared koala, Francesca, at Wedderburn and she was not due for a catch.

Our research is monitored closely by the University of Western Sydney's animal ethics committee, and we can catch the koalas only for specified experimental reasons.

We offered, however, to find Francesca for



the minister who could then be photographed looking up at her.

Eventually the announcement was made without a visit from the minister and the details are fascinating.

In addition to handing over the land that was the battleground for the Wedderburn koala campaigns of the late 1980s and 1990s, additional land, south of Victoria Road and beside Stokes Creek, will also be added to the conservation area.

This last parcel is particularly interesting and its inclusion was a great surprise to us.

It was originally bought by the Roads and Traffic Authority as compensatory habitat for land damaged in making the Bangor Bypass

at Menai. Both areas include the vulnerable paperbark, *Melaleuca deanei*, which is limited in the wild to 1000-3000 individuals.

The RTA has also provided \$600,000 to protect the species.

This is good news for all native species in the area and also for O'Hares Creek and its fabulous gorge.

This transfer means that for the koalas there is now a protected, southern bushland link between O'Hares Gorge and the Georges River.

From there, koalas need travel only 500 metres to Appin Road and then a kilometre to Mullaty Creek which runs into the Nepean River.

Once a koala has reached the Nepean it could then travel through riverside vegetation across the Sydney basin.

We hope to hear from people along the Nepean who have spotted our dispersing young koalas: call the UWS koala pager. Details: 9962 9996.

Off the radar: June is missing in action

In a photograph of June and her new cub that accompanied a recent Mac's koala column, a careful observer would have noticed June's radio-collar and the small black aerial extending from it.

Unfortunately, that radio-collar has ceased to transmit and we are unable to find either June or the collar.

There are several possible causes of the transmitter's failure.

Firstly, June may have suddenly moved far enough away from her usual haunts that we are unable to receive a signal.

However, our radio-tracking team has been searching far outside her normal area.

Secondly, the transmitter's battery may have failed six months early.

Thirdly, the transmitter may have been damaged by the recent rain.

Such failures used to be a relatively frequent but in recent years the design has been improved to prevent leaks.

Fourthly, the cub may have bitten off the aerial.

It's quite common to find the tips of the aeriels extensively nibbled.

Fifthly, the collar may have fallen off and been damaged.

Sixthly, June herself may have been injured by a car or dog and the transmitter damaged.

Whatever the case, and we hope that the sixth possibility does not



apply, we want to find June and replace the collar.

Even though we now know her favourite places and what her usual tree species are, she is still very difficult to locate.

She is very good at finding trees in which she is effectively invisible and so far has defied our attempts to find her.

We need more watchers and we appeal, therefore, to the people walking around Kentlyn to keep a special eye out for June.

She usually lives in an area of about 10 hectares in the vicinity of Kentlyn Primary School and the Russian Retirement village, on either side of Georges River Road

but may have moved out of this area.

She may be in towering eucalypts or in low, densely foliated bushes.

Spotters have to be prepared to consider all possible places where June and her cub may be hiding.

We would like people to watch out for the \$350 collar too.

It resembles a black vinyl dog collar to which a small, silver aluminium canister – that holds the transmitter and a small battery – is attached.

The 20 centimetre aerial is attached to the collar and protrudes opposite to the canister.

If you see either June or the collar, please call the UWS koala pager 9962 9996.

■ Robert Close
and Steven Ward

Setting reserved for the koalas

At the northern end of Georges River Road lies the Basin Reserve, or the Keith Longhurst Reserve as it is also known, a beautiful area of 76 hectares bounded to the east by the Georges River and to the north by Peter Meadows Creek.



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The Basin itself is a deep, wide swimming hole in the Georges River with its own waterfall cascading over a large sandstone shelf.

At the northern end of the basin Punchbowl Creek enters the river and contributes its unpolluted water. The basin is a marvellous place to swim although bathers have to earn their swims with a hike of more than a kilometre from Georges River Road.

Fortunately, what was a difficult scramble down to the river has recently been provided by the Campbelltown Council with steps mostly built by the Green Corps. However, visitors using the track still require considerable agility.

Another walking trail in the reserve that is more accessible is the Old Ford Road which is not named after someone's ancient car but because it leads to a ford in the river.

The road was built in the 1880s as part of an employment program and provided a quick route to Sydney via Moorebank.

The original stone-work remains and demonstrates the clever engineering required to drain the road and masonry skills of the workers. The road was upgraded a few years ago and provides a relatively easy walk to the river (but does not go to the basin).

The reserve is part of the 200 hectare territory of an old male koala, Jacob, which we radio-tracked for some time. We eventually lost radio contact with him but later located him by chance after he'd lost his radio collar.

Jacob was very difficult to radio-track because he travelled large distances amongst some very rough terrain. We assume he visited some females while he was in the reserve but so far we haven't found any.

A group of National Parks Association hikers recently heard two koalas bellowing in the reserve so we expect that females were the stimulus.

A Draft Plan of Management for the Basin Reserve is currently on view at the council and submissions are invited. Deadline is November 5.

If anyone should spot a koala in the reserve or elsewhere, please call the UWS koala pager, 9962 9996.

Girl guides catch Lyn snoozing

The Macarthur Region Guides contacted us recently to ask whether we could talk about koalas to a group of guides who were camped at Ruse over the weekend.

The guides were participating in a worldwide ham radio jamboree.

The Campbelltown Amateur Radio Club set up a system so that the girls could communicate with their fellow guides across the world.

It turned out that the campsite was near koala Lyn's territory. She had once been tracked to the edge of the site.

We agreed to talk to the girls and promised to track Lyn before we arrived. If she turned out to be within walking distance of the campsite we would take the guides to visit her in the bush.

As it turned out, the day was clear and warm. Lyn was only 20 metres from a fire trail and her tree was only 500 metres

from the campsite. So the guides were soon trooping through the bush.

Lyn was in a smallish tree and looking rather bedraggled. Perhaps the drought had had a bad effect on her.

She is, after all, 10 years old and her teeth would be worn, making it difficult to break down hard, dry gum leaves and release the nutrients on which the koala depends.

The recent rain should encourage



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new, softer leaf growth. It will be interesting to see if the condition of our radio-collared animals improves.

Unfortunately, Lyn was snoozing and was not very exciting to watch.

Hopefully the girls will be on the watch and will call us on the UWS pager number 9962 9996 if they sight any koalas during their activities in future.

Campbelltown Macarthur Advertiser, Wednesday, October 27, 2004

Scouting for cubs in the bush

Whenever possible, we give distinctive eartags to the young cubs after they leave their mothers' pouches but before they become independent.

The youngster then sets off into the wide world and we wait for people out in the community to spot it and call us.

Sometimes we have to wait for years – eight in the case of Elle – before we can relocate the animal. It's always exciting when the pager buzzes and the message says that a tagged koala has been sighted.

Who will it be? How far has it



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moved since it was tagged? Does it now have young of its own?

We've found that the males tend to move considerable distances from their mothers' territories and we've been able to gather information on the routes they take and what defines a "koala corridor".

The daughters, however, don't

travel so far and we would like to know much more about the way that they set up their own territories.

So far we've been able to follow the lives of three daughters to the point where they have daughters themselves.

Two of the former have been radio-collared, but unfortunately both of their radio-collars ceased transmitting prematurely and we've been unable to recapture them.

The third, Janice, has been seen several times and her first cub has recently been spotted outside the

pouch. Janice is the daughter of Irene whose territory adjoins that of Shirley beside the Georges River.

Janice then moved three kilometres north to the Peter Meadows Creek where she's been spotted regularly by local bushwalker Kieran Griffin.

Kieran has earned naming rights so often that he allowed us to choose the name for Janice's cub.

So we named her Lorraine.

What will the cub's future be? You may be able to help us find out by ringing the UWS koala pager 9962 9996 if you spot a koala.

Lazy lizard too slow to escape

We often receive fascinating calls.

One caller this week announced that he has found a large, dark shingle-back lizard crossing Wedderburn Road at the top of the gorge on the Campbelltown side.

Such a find is unusual because shingle-backs, or sleepy lizards as they are also known, occur naturally only west of the Great Divide.

They are so slow and easily captured that motorists tend to pick them up when they see them crossing roads, and take them home as pets.

Because keeping these animals is illegal they are then released in the Sydney bushland where they unlikely to survive.

On receiving the call we contacted WIRES reptile handler Neville Plumb (on 0417 049 250) who collected the animal and will look after it till a decision is made on what to do with it.

We don't know where it came from so we cannot just release it anywhere west of the Great Divide.

Such a release could upset the genetic status of animals at the release site.

On the other hand, euthanising the lizard is a harsh option. We will make an effort to find it a legal home.

The moral of the story is that people should leave alone animals in their



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natural habitat. Moving them will always cause problems.

One of our radio-collared koalas, Martine, was also originally found crossing Wedderburn Road and was released at the capture site.

She now has a specially built apparatus for climbing up the newly constructed reinforcements for the rock-face which the council has recently completed beside Wedderburn Road in the gorge.

We met with the council's planners to design a passage for koalas up the rock face, and we are all pleased with the outcome.

Martine, too, seems pleased.

She rewarded the construction workers by watching their work for a couple of days from a nearby tree.

We don't yet know if she's discovered how to use the apparatus, so if any motorists in the gorge see her climbing the rock-face we would be delighted to hear from you.

The UWS pager number is 9962 9996.

Spotted bears all over the place

PEOPLE often ask us whether the Campbelltown koalas are increasing in number.

Our problem in answering is that we don't really know what the numbers were like prior to 1990 when our studies started.

We've met long-term residents of bushland areas who are convinced that koalas have arrived only recently to the region. Consequently, we are always delighted to receive early reports of koalas in the region.

One such report came from Keith Bursill, who informed us that his father, Samuel, had attended a grammar school in the old house at St Helens Park in the 1890s.

Samuel had told Keith that koalas were seen regularly in the large trees in the school grounds and that students would be punished for throwing stones at them.

It's good to hear from callers that koalas are still commonly sighted from nearby Ironside Drive and Fullerton Crescent.

Two young students called us to report that they'd spotted a koala near Fullerton Crescent as they walked to school. We suspect that they'd spotted one of our ear-tagged males, Alex, who is occasionally sighted in the area.

Once he was spotted in Moncrieff Park, a small reserve which is surrounded by houses and adjacent to the old St Helens Park

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House. We've no doubt that if feed trees were planted throughout St Helens Park that koalas would be seen more regularly in the suburb.

In fact, wildlife in the suburbs is a feature of Campbelltown life and enriches the lives of many residents.

One of our callers from Fullerton Crescent reported that from her house she could see a lyrebird performing his marvellous dance and tail feather display for his female.

Another caller reported that a pair of Pacific bazas was nesting in her garden and yet another call reported koalas from a property at Douglas Park. Apparently several were sighted.

We've yet to follow this call up but are eager to do so because, if there is a viable population there, it means that young koalas can disperse through the trees beside the Nepean River right across Sydney, relatively unhindered by roads and cleared spaces.

The stories described above show the value of reporting wildlife via our UWS koala pager, 9962 9996. Our thanks to the callers.

Brittany spears up a grey box eucalypt

AS if on cue from last week's story about the koalas reported last century from the St Helens Park House, we received calls about a koala just 200 metres down the road from the old house in a grey box eucalypt beside Kellerman Drive.

The koala was eartagged and turned out to be Brittany who we had captured and tagged along with her mother, Courtney, in March 2003.

If Brittany was 12 months old when we caught her, she would now be approaching three years of age and ready for her first cub.

This stage of her life may explain why she appears to be leaving her cubhood home in Spring Creek.

She has been sighted regularly over the past year in trees beside Ironside Drive but now seems to have made a significant move.

We would appreciate calls from people who may spot her because that is the only way we can follow

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her life. We have radio collars on some of our tagged koalas but cannot afford the time or cost of tracking all of them.

Fortunately, the community sighting program works well and we hope to hear more of Brittany's movements.

At the moment she is right on the edge of a large area of land owned by Landcom.

The site has previously been planned for residential development but that proposal was rejected by the Land and Environment Court.

At present only male koalas have been seen on the site, although our radio collared female Elle lives

on the western edge. We've always considered, however, that the site appeared to be suitable koala habitat and it was just a matter of time before breeding females moved onto it.

So Brittany's next moves will be interesting.

Her choice of tree was interesting too.

Grey boxes are not usually listed as feed trees, but Brittany was tucking into it with great gusto.

This species is found on clay/shale soils that have now largely been cleared of their natural vegetation.

These soils are more fertile than the sandstone soils found closer to the Georges River and the transition area between the soil types appears to be important to the survival of Campbelltown koalas.

Help us to keep track of Brittany and the other Campbelltown koalas by calling the UWS koala pager 9962 9996.

Zac points to Patricia sighting

NORMALLY when it's time to write Mac's column each week there are one or two interesting stories from which to choose.

This week, however, there are six reports awaiting and we will deal with them all over the next few weeks.

First call was from 11-year-old Zac Thomas who reported sighting a koala at Long Point, Ingleburn.

Long Point is a peninsula surrounded on three sides by the Georges River.

Although housing lines the road that runs the length of the peninsula, much natural vegetation remains and it appears to be excellent koala habitat.

However, we have only received one previous koala report and assumed it was a dispersing young male.

What we need to determine whether an area is breeding habitat, of course is to find a female with young.

Science progresses in a series of steps, the first of which is the observation stage, in this case that Long Point appears to be good habitat and that koala numbers in nearby known breeding areas of Ruse and Kentlyn appear to be increasing. The second step is the hypothesis stage.

Our hypothesis, or prediction, is that koalas will continue to spread through areas of suitable habitat all along the Georges River from Appin to Macquarie

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Fields and that we will eventually receive reports of breeding animals from all those places.

The third stage is the testing phase where reports of breeding females would be consistent with our hypothesis.

So when we heard about Zac's koala we were eager to make our first test of the hypothesis for Long Point.

To our great delight the koala was a female and Zac, used his naming rights to name her Patricia after his grandmother. Young Patricia weighed in at 6.2kg, a weight that indicated that she was two to three years old and entering her first breeding season.

Her pouch was clean and the two nipples were small indicating that she'd not given birth before.

So we ear-tagged her and released her into the Long Point bush.

We now rely on local residents to keep an eye out for Patricia.

Hopefully we'll be able to show in a few months that she is breeding.

Residents should also listen for the pig-like bellows of the male koalas and be on the look-out while driving.

Please report her movements on 9962 9996.

Sneaky June was there all along and toting her bub Vicky

SINCE last April, we have been asking Kentyn residents to keep a special look-out for June because we lost her when her radio-collar unexpectedly ceased transmitting.

June's territory included bushland and backyards on either side of the Georges River Road near Kentyn Primary School.

With so many people in her territory and with our own regular searches for her, we had expected to find her fairly quickly, but as the months rolled past and with no sign

of June we began to fear the worst.

To our great relief however, some young lads reported a koala with June's eartag combination in bushland adjacent to their house. It shows how difficult koalas are to see. June had been living undetected in the same 10-hectare area for seven months. She had a large cub with her, and both went into the trap we set for them overnight.

The cub, which the lads named Vicki (after their Mum), was about 12-months old and looks as though she will soon be independent. We could tell by inspecting June's pouch that she was no longer suckling.

Koalas have two teats, but only one of them is suckled by the cub. One of June's teats was bigger than the other, but not as

swollen as it would have been had Vicki still been suckling. We then gave Vicki a set of eartags and let her and June loose. We look forward to following Vicki's life as she becomes independent.

A few days later, we were delighted when June's daughter from two years ago, Chenia, was spotted near Kentyn Primary School, and so is still living in her mother's territory - we'd like to discover whether June will continue to allow Chenia to live in the area. We suspect that Chenia will eventu-

ally move onto another area just as June did when she left her mother Shirley's territory several years ago.

We suspect that Chenia will breed this season which will give us our first great grandchild that we've been able to follow since our study began. Studying family lines is a marvellous opportunity to understand how female koalas share out suitable habitat. Every sighting of an ear-tagged koala gives us valuable information so don't forget the UWS koala pager - 9962 9996.

A furry life can blossom from a pea in pouch to independence

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WHEN a koala is born, it is not much larger than a pea but despite its immaturity it must then climb by itself into the pouch where it then spends the next six months of its life.

After leaving the pouch, it spends another six months clinging to its mother and travels about on her back.

The cub then gradually separates, first sharing the same branch, then moving to a different branch then to a different tree and so on until it's entirely independent.

Elle's cub, Robert, was sharing the same branch with his mother when we caught them both recently.

It was time to change Elle's radio-collar and we also wanted to give the cub its ear tags before it became independent.

We had previously caught Elle a year before and at that time Robert was still peasized, so we know that he is now 12 months old.

Knowing the exact age of the cubs is important because it means that we can compare growth rates of cubs from different mothers and from different areas.

For example, although Robert looks healthy he is 400 grams lighter than June's cub, Vicki, who is the same age.

June is only four years old whereas Elle is 12.

Consequently, Elle's teeth would be



Hello Robert: Elle's 12-month old cub Robert gets the once over from the Mac Koala team.

more worn than June's and so she would have to spend more energy chewing and so might have less energy available for feeding her cub.

Alternatively, the eucalypt leaves in June's territory at Kentlyn may be more nutritious than those in Elle's area near Wedderburn Gorge.

We need information from more cubs and mothers before we can decide which alternative is more likely.

When we examined Elle's radio-

collar we found that the aerial not only had teeth-marks on it but had also been pulled out of alignment.

We suspected, therefore, that Elle had recently mated again and sure enough, in the same tree we found Nathan looking very pleased with himself.

Neither Nathan nor Robert have radio-collars and we rely on people to spot them and tell us. Don't forget the UWS koala pager number, 9962 9996.

100 koala stories waiting to be told

WITH 100 koalas now ear-tagged, there are 100 individual koala stories waiting to be learnt and told. So it is exciting for us when people report ear-tagged koalas.

This information allows us to plot the animals' movements, determine their territories and follow their lives.

Last week four calls revealed information on different ear-tagged koalas. The first turned out to be Varrowville, first found and named by the Varrowville Rural Fire Service when they were checking a fire at Minto Heights in September 2002.

Since that time she has moved six kilometres, apparently unnoticed, and is now close to Shirley's territory in Kentlyn. Has she settled down or is she still looking for her own territory?

Perhaps she'll continue moving along

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beside the Georges River as some of our tagged males have done.

She may even challenge old Shirley for her valley. We'll have to wait and see.

The next call identified Chenia, who is June's adult daughter and Shirley's granddaughter. She still lives in her mother's territory.

Not 20 metres away we found June. But June's recently independent, one-year-old daughter Vicki was nowhere to be seen. We suspect that June may be in the process of forcing Chenia to find a new area. Again, we'll have to wait for more sightings.

The third call came from Minto Heights where a resident spotted a big male, the

first koala that he'd sighted on his property despite 20 years of keeping his eyes open. The male turned out to be Jack, a young male that has been spotted over the last year near Hansens Road, Leumeah.

The following day, the reason for Jack's presence was revealed when a young eartagged female was spotted on the same property. We identified her as Debbie, the daughter of Amanda, an old female that we are radio-tracking beside Peter Meadows Creek.

Since Debbie left her mother in July 2003 she's moved two kilometres to reach her current position.

As for Varrowville and Chenia, we are relying on the community to help us plot their lives. Don't forget the UWS pager, 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, December 29, 2004

Note:

No column published on this date

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, January 5, 2005

Tags reveal sad end to Frank's journey

LEUMEAH High School students will remember the day Frank came to school three years ago, and stayed for a day in a tall redgum peering down at the students.

Frank was off on his travels, starting at his mother Shirley's territory beside Georges River Road at Kentlyn.

As he travelled, people spotted him and called in to report his progress along Nymboida Avenue and through the Smiths Creek bushland and then into the high school.

But after the school sighting, there was a deafening silence. We suspected that he had been killed by a car or dogs.

So it was with mixed feelings that we received a call from a resident at Ingleburn to report Frank's eartags. Unfortunately Frank was dead and the decomposing body would have been dead for at least two weeks.

There was no obvious cause of death as there were no roads nearby and the skull showed no signs of teeth marks.

The body lay over an old fence-line so Frank may have been caught in the loose wires.

The skull was that of a fit young koala.

A crest of bone along the top of the skull, which allows the build up of massive jaw muscles in mature males, showed that Frank had reached maturity, yet there was

MAC KOALA CLUB

little wear on the sharp cutting surfaces of his molar teeth.

So Frank would have been gaining maximum energy from each chew, unlike older males with molars worn smooth from use.

It's unlikely, therefore, that Frank would have been killed by a competing male.

But we can't reject that possibility, as the resident who found the body reported male koalas bellowing last week in the same area.

Frank was first tagged in June 1999 and was born in late 1998.

We can now use Frank's six-year-old skull as a standard against which to compare the wear on the molars of animals of unknown age to assess their age.

We also know that Frank travelled a direct distance of seven kilometres from his mother's territory.

This contrasts with the epic journey of his brother Bill, who travelled 20 kilometres across Holsworthy to Alford's Point.

So, although Frank's premature death is sad, we learnt much from his life and we are grateful that his body was reported to us on the UWS koala pager, 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, January 19, 2005

Creek to be transformed from pipe to park

IT'S almost 20 years since the downfalls of 1986/7 caused the Georges River to flood Liverpool and Milperra.

Since then, the potential for flooding has been increased by the spread of housing in St Helens Park, Rosemeadow, Blair Athol and Blainmont.

With every new road, footpath, house, and concrete driveway, the surface

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area available to absorb rainfall has diminished.

The extra run-off rushes down gutters into the creeks to the Georges River where it meets the tidal surge coming upstream. The two flows meet downstream of Liverpool and then flood out over low-lying areas. One such creek is Bow

Bowing Creek which flows from Glen Alpine to Macquarie Fields.

Bow Bowing Creek has been converted into an concrete drain designed to prevent flooding by moving water quickly downstream.

But the displaced water is likely to flood suburbs downstream.

We took a tour organised by Fairfield Council to inspect the council's con-

version of concrete creeks into a series of ponds and lakes that slow the rate of water run-off and capture pollutants, and when revegetated with native plants will be transformed from eye-sores into parks and picnic areas.

The amazing transformation is a credit to the

council and a boon for residents. The ponds and vegetation would be a haven for frogs, birds, lizards and invertebrate creatures.

If the correct trees were planted koalas too would use the corridor.

Meanwhile, don't forget the UWS koala pager 9962 9996 to report koalas.

Campbelltown Macarthur Advertiser, Wednesday, January 26, 2005

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, February 2, 2005

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, February 9, 2005

Rubbish an eyesore in beautiful bushland area

SPRING Creek is an important area for koalas.

It collects run-off from the suburbs of Ambarvale, Rosemeadow and St Helens Park before running into bushland beside Woodlands Road.

Unfortunately, it also collects a huge amount of rubbish that people allow to wash into gutters.

Much of this is collected at the edge of the bushland by a concrete and metal grid called a gross pollutant trap.

Sometimes, however, the flow of water is too great for the trap and the rubbish flows downstream where it enters a dam with an ornate sandstone wall that was built to supply water to St Helens Park House.

A huge amount of rubbish is currently festooning the vegetation downstream of this dam and is a terrible eyesore in an otherwise beautiful area.

Fortunately, koalas don't seem to be affected by rubbish and the number of koalas using the Spring Creek bushland is relatively large and apparently increasing.

In the past two weeks bushwalkers have spotted Barney in his usual haunts beside Ironside Drive.

Not far away, next to Fullarton Crescent, an untagged adult female was spotted, while further down the valley was radio-collared Elle.

Mac Koala

Not far away were Elle's cub from last year, Robert, and a large, untagged male koala. This is a curious case because a couple of months ago we found Elle in the same tree as Nathan and decided that mating had occurred at that time.

If so, Elle would now have a joey in the pouch and therefore not be ready to mate. It's also of interest because we wonder just how many males can fit into Spring Creek.

Besides Barney, Nathan and this new, untagged male, Alex is also regularly seen in the valley.

As well as the resident males, there are also those that are just passing through.

One of these met an unhappy end last week beside Wedderburn Road.

Weighing 7.5 kilograms, he would have been aged two or three years old.

Whether he was killed by a dog or a vehicle we don't know because, although dogs had moved the body, they may not have killed it.

Whatever the case, we ask people to drive watchfully and not allow their dogs to roam.

Don't forget our UWS koala pager number: 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, February 16, 2005

Mac Koala

Plainly a big turnout for ecology issue

A SYMPOSIUM was held last week at UWS Campbelltown on "The ecology and management of Cumberland Plain habitats".

Although only 40 participants were originally expected, 200 turned up on the day indicating how much interest there is in the Cumberland Plain which runs west of Liverpool from Camden and Campbelltown in the south across to Richmond in the north.

Sadly, only 7 per cent of the original vegetation remains and clearing continues despite the fact that Cumberland Plain woodland has been declared an endangered community. Participants at the symposium met to discuss which native species remain and what can be done to effectively manage them.

We presented some of our information on the breeding rates and movements of local koalas and the likelihood of their spreading from Campbelltown out across the Cumberland Plain.

We showed that six of the first 12 female koalas we tagged in the early 1990s and radio-tracked were still alive and reproducing regularly, despite all being more than 12 years old.

The six include names that are familiar to readers of Mac's Club: Shirley, Lyn, Franchesca, Molly, Elle and Amanda. Between them

they have produced somewhere between 19 and 44 youngsters, many of which are now full-grown and producing young.

We also presented maps showing how far female young had moved from their mothers' territory before establishing their own territories and the amazing distances some male young had travelled.

In addition we reported that we had now put eartags on 52 local males and 55 females and, after their release, had seen 39 males and 34 females at a later time.

Among the audience was a scientist who was developing a computer program that can map expected movements of animals and where they are likely to establish territories. He considered that our information might be suitable for running on his program.

We hope, therefore, to set up a joint project so that we can predict whether our local koalas can successfully colonise adjacent areas.

Such predictions would allow us to pinpoint bushland areas and corridors that would be important in this process.

We thank all the people in the community who have provided our information by spotting koalas and calling the UWS koala pager: 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, March 2, 2005

Mac Koala

Bird's-eye view of threatened habitat

TWO weeks ago while attending a UWS symposium on the Cumberland Plain habitats we ran into Michael Paul, Campbelltown's local bird expert.

Michael is disturbed by the effect on local birds of continued clearing and abuse of Cumberland Plain vegetation.

He recently wrote a submission to Campbelltown Council about the potential damage from the proposed development of Edmondson Park.

This site, which lies between the freeway and Campbelltown Road, contains 271 hectares of Cumberland Plain woodland, of which 206 hectares have been described as having "moderate to high" ecological value.

Of these 206 hectares, almost half will be removed or modified for residential development.

A significant amount of a second endangered community, Sydney Coastal River Flat Forest, will also be damaged.

Michael fears that 18 bird species that have been recorded recently at Edmondson Park, and which have declining populations in western Sydney, will come under further pressure from the development.

If readers would like an electronic copy of Michael's submission, send an email to r.close@uws.edu.au.

On a happier note, Michael told us of a successful response to an earlier Mac Koala column.

The column had described Michael's sighting near Peter Meadows Creek of the rare and "vulnerable" square-tailed kite. We asked for anyone else who had sighted one to call Michael.

Callers rang to say they thought they had seen the kite at Smiths Creek, Ingleburn and Minto Heights. Although Michael thought the descriptions accurately matched the kite, he was unable to verify the sightings.

More recently, two readers rang to report independent sightings in Smiths Creek Reserve - and this time Michael was able to verify them.

Previous sightings of the kite on the Cumberland Plain have been spasmodic.

Michael hopes the cluster of sightings near Campbelltown indicates the kite may be nesting. He asks people to keep an eye out for the nest, which is likely to be 13-20 metres above ground in a eucalypt and near a track.

Report any sightings on the UWS koala pager 9962 9996.

The search for treetop lumps

A GROUP of 80 canoeists recently paddled the Nepean River from Douglas Park to Menangle to protest against mining for coal under the river.

The paddlers fear that the mining will crack the river-bed, as has already happened under the Georges and Cataract Rivers, change oxygen levels and damage the cliffs.

Numerous grey gums, which are a favourite food tree for koalas, line the river in this section and consequently the riverside should provide excellent habitat for koalas.

We know that koalas live beside Allens Creek and the Cataract River which are both local tributaries of the Nepean.

In addition, one of our male koalas that we tagged at Ruse finished up at Douglas Park.

So we expect that koalas will move along beside the Nepean and we would like to verify this idea.

We encourage all users of the river,

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therefore, to scan the trees as they pass and check every dark lump in the tree-tops that might be a koala.

Canoeists can also be on the lookout at dawn and dusk for the ripples and dark shapes on the surface that could be a platypus.

We have had reports of 5 sightings of platypuses in the Douglas Park/Menangle section of the river since 2003 and would love to verify these records.

Dr Tom Grant, well-known platypus biologist, considers that this section of the river, with its frequent earth banks rising more than a metre above the river and with a good screen of vegetation protecting access to burrows, provides suitable habitat.

Although it would be great to see koalas and platypuses, the most exciting find would be to sight a

Brush-tailed rock wallaby which has recently been listed as endangered.

We have received several reports of sightings from local residents and the rocky habitat, particularly the section on the eastern bank immediately downstream of the Cataract River junction, looks suitable.

Rock wallabies prefer high rock jumbles that provide lots of small caves for shelter and many escape routes from predators.

The animal is small (5-7 kilograms) and is chocolate brown with a black bushy tail.

Unfortunately, the locally common swamp wallaby (10-15 kilograms), also has a black tail though not bushy so searchers would have to see the rock wallaby bouncing acrobatically across a rock face to make a positive identification.

**Call the UWS koala pager
9962 9996 to report koalas,
platypuses and rock wallabies.**

Will the real constable stand up?

Mac koala

LAST week we were called to a veterinary surgery at Casula where a youngish male koala with lacerations to the nose-pad, chin and right eye had been brought in by a police constable.

Employees understood that he had been caught up in barbed wire at the Holsworthy barracks but they knew no more about him.

Vets at the surgery felt too unfamiliar with koalas to treat him so we took the animal to Campbelltown Veterinary Hospital.

The wounds were soon washed and ointment applied to an eye wound.

Then we set him up in an aviary with tree forks and fresh eucalyptus leaves.

In the absence of the original captor, who would normally have had naming rights, we named the koala Constable John.

He weighs 7.5 kilograms - the weight of a four-year-old male.

We believe he's the koala photographed a few weeks ago at the Holsworthy firing range.

At that age, koalas are roaming the countryside and tend to find themselves in

trouble. After a few days in captivity, Constable John has a vastly improved eye but is looking too placid for our liking and should be rampaging around and trying to escape.

Instead, he scarcely reacts when we wash his eye and apply the ointment.

We will keep him in captivity until he becomes more feisty.

Young male koalas have to have lots of zest and energy to survive the hazards of life at the edge of the city.

After Constable John's eye and vigour improve, we still face the problem of deciding where to release him.

Normally we try to return animals close to the site of capture but on this occasion we don't know where that was.

So we hope that the real Constable John will ring us to give details of the capture.

But it's probably not so important for young males that we release them in familiar territory because they're on expeditions of discovery.

We'd still like to know his story, though.

Report sightings on the UWS koala pager 9962 9996.

Constable John is on the mend

LAST week we doubted whether Constable John, the young male koala that had reportedly ripped his face on barbed wire, would survive.

His head was slumped, his limbs were limp and he scarcely responded when we washed his wounds and squeezed ointment into his eye.

However, he was still propped in his tree fork.

Usually when koalas are ill they sit forlornly at the base of the tree.

So, we fearfully approached Constable John's aviary next morning and were surprised to see him still in his fork, with a few nibbled leaf stalks to show that he was eating.

That evening, however, we found that he had awoken from his trance, like a furry Sleeping Beauty, and was leaping energetically round his cage, jumping up one branch and sliding two metres down another at amazing speed.

If we entered the aviary he would climb as high as possible and look down on us in such a threatening manner that we felt uncomfortable turning our backs on him to change his gum leaves.

What had led to this miraculous recovery we don't know – perhaps his initial inactivity was due to shock related to his injuries and captivity.

Mac Koala

However, his cuts were superficial and we suspect that there is more to know about the Constable's story.

For example, the cuts are confined to his face, whereas had he been caught in a barbed-wire fence his paw pads would have torn.

Perhaps he had been hit by a car and was merely found beside a fence.

Alas, our attempts to find the real Constable John have failed.

There is no John at Liverpool police station, and no police record of a koala apprehended on the night of Tuesday, March 8.

We would love to hear from anyone who knows about the story.

Having demonstrated his readiness for the wild, the koala was soon returned to it.

We fitted him with eartags, then decided to leave him close to Shirley where the eucalypts must be of excellent quality.

We also felt that it might be reassuring for him to convalesce in an area where koalas are living.

We would like to follow his progress so please report any koala to the UWS koala pager 9962 9996, especially if it has scabs on its eye, nose and chin.

Mac Koala

Rescuers solve case

IN last week's column we asked for readers' support in locating a "Constable John S" who had rescued a young koala and delivered him to a vet in Casula.

By the time we'd been notified and collected the koala the policeman's contact details had been lost.

All we knew was that the koala had been found on a barbed-wire fence at Holsworthy by the constable in whose honour we named the young male koala.

The power of the *Advertiser* was soon demonstrated when the koala pager rang to give the message "Pls phone Constable John Schweitzer re rescue of koala earlier this month".

Returning John's call we discovered the koala's story.

John and Scott Warren, who belong to a central police unit, were flagged down on Moorebank Avenue by people who reported that a koala had been hit by a car.

John and Scott discovered the animal clinging to a wire fence. Fortunately they had a blanket in which they were able to wrap the animal to avoid his long claws and sharp teeth.

Once safely in custody the koala was taken to the Casula vet after which John and Scott returned to their work, having demonstrated how unusual a day in the life of a policeman can be.

Knowing that the koala had been hit by a car allowed us to understand his sluggishness during the first week of captivity followed by his overnight recovery into a feisty, young buck.

Apparently the shock and concussion arising from the impact had initially kept him quiet.

Knowing exactly where he was found was also useful. We'd received a report and photograph of a koala from near Holsworthy army range control the previous month.

Because many koalas have distinctive pink patterns in the lower skin of their otherwise black nose-pads, we confirmed that the animals were one and the same.

As the two sightings were 1.5 kilometres apart, it appears as though the young koala was travelling and headed for the heart of Liverpool.

By releasing him in Shirley's territory in Campbelltown, we may have brought him back to his starting point.

However, we know that the food will be appropriate while he gets over his sore head and Shirley's company may be reassuring.

Call the UWS koala pager if you see him: 9962 9996.



Grey power: Shirley and her cub.

Shirley has it in cubby hole

WE regularly receive requests from students for koala information.

Because we don't have the resources to respond to all the requests for school projects, we hired a student to set up a file in the Campbelltown library, which now has the collected and indexed copies of the Mac columns, printed articles on our work and a copy of Steven Ward's thesis.

Unfortunately we've lacked the resources to update the file and it is now two years behind.

So when we recently received a request from Daniel Glover, a student at Campbelltown Performing Arts High School, for information on the effects of the recent drought on koalas, we felt that referring him to the files would be inadequate.

Fortunately we now have data from six of our radio-collared koalas that goes back to 1994.

Since that time we know that they have produced at least 34 young and of these only four have died before weaning.

Of those four, one was taken from its mother by a dog and the others vanished during the drought last year.

That is, we saw the cubs with their heads out of the pouch last year in May and then they disappeared.

One of our younger mothers, Martine, also lost a cub at the same time.

So that was the first time in 13 years of studies that we'd had unexplained deaths and in the drought year found four.

It's not surprising that the mothers lose their cubs near the end of pouch life, because this is the time that the cubs are growing fastest and are the biggest strain on their mothers.

It seems harsh, but it's better for the experienced mother to survive at the expense of the cub than for the mother to risk her own survival.

Another sign that the koalas were suffering last year was that their coat colour became quite brown rather than the soft ashy grey that denotes good health.

What causes the colour change, we don't know.

It could be that the koalas don't have time to groom themselves or perhaps the coats are not being supplied with the correct amounts of oils.

Whatever the case, we can report that all the animals are now sporting beautiful grey coats and Shirley's latest cub has just emerged from the pouch and looks in no danger.

Mac Koala

Our bears are quite different

WALKERS in the Campbelltown bush will sometimes notice trees sporting small aluminium disks with a number punched on them.

These markers indicate that one or other of our radio-collared koalas have been located in those trees and the markers allow us to determine whether koalas have favourite trees.

It turns out that Campbelltown koalas are not often found in the same tree.

This finding differs from those of other studies.

For example one study of 919 observations of 19 koalas on Kangaroo Island found that the koalas were found 85 per cent of the time in only 15 trees and one female was found in just one tree 80 per cent of the time.

Of course, the animals may have been feeding on other trees during the night and just returned to their favourite tree to roost during the day where they were spotted by the investigators.

Nevertheless, we still have to ask why Campbelltown koalas are different.

Researchers suggest that koalas choose to feed on the leaves of a particular tree according to the smell of the leaf.

One researcher considers koalas will avoid any leaves with high concentrations of special compounds called formylated phloroglucinol compounds, or FPCs and that the presence of FPCs can affect koala numbers and location.

The researcher found that different trees, even of the same species, will have different amounts and proportions of these FPCs and that a koala can only eat up to a certain amount of the FPCs from a given tree.

Once that point is reached the koala must move to a different tree that will have a different mix of FPCs

So while the koala's liver is detoxifying the FPCs from the first tree the koala can be eating from the second tree until the safe level for that tree's FPCs is reached; whereupon the koala must change trees again.

One suggestion for the Campbelltown situation therefore would be that the levels of FPCs in our bushland are high and that the koalas must move frequently to avoid poisoning themselves.

To test this idea, however, we would have to follow a radio-collared koala all night as it moved from tree to tree and test each tree for its FPC levels.

Mac Koala

How koalas bear similarity

THE heading for last week's Mac Koala column, "Our bears are quite different" is not one that we would have chosen.

Although bears and koalas are both mammals, the koala is a marsupial. Consequently they are much more closely related to kangaroos, possums, wombats, Tasmanian devils and bilbies.

In fact bears and koalas last shared a common ancestor probably more than 100 million years ago.

By that time-scale, humans are much more closely related to other eutherian mammals such as bats, whales and elephants than koalas are to bears.

Koalas became known as "bears" when European settlers arrived in Australia and discovered its amazing animals. The settlers compared them with those they were familiar with and allotted names if they could see any similarity.

So koalas were called native bears (and sometimes monkey-bears), wombats were called badgers, thylacines were called Tasmanian tigers or wolves, quolls were called tiger-cats and native cats and the great array of small marsupial carnivores such as the dunnarts, planigales and antechinuses were all called marsupial mice.

These comparisons were often extended to the scientific name given to each animal.

For example, the scientific name for the koala is *Phascolarctus cinereus*, which means "pouched bear, ashey-grey".

Some species, however, were so unique that the settlers could find no eutherian equivalent. So the kangaroo and the numbat became well known in their own right.

Most biologists are now trying to encourage people to use common names for our animals that do not link back to eutherian equivalents. Accordingly there has been a push to recognise names such as thylacine, quoll and bilby and to drop the eutherian equivalent; hence our disapproval of the use of "bear".

The UWS koala pager number is 9962 9996.

Bushland our heritage bond

A HERITAGE forum was held recently at the Campbelltown Arts Centre.

Among the speakers were two people who specifically emphasised important features of Campbelltown's heritage, namely the culture, traditions and assets transferred from generation to generation.

The first speaker, Jim Marsden, humorously spoke of growing up in 1950s Campbelltown when the population was only a few thousand.

In those days he and his mates had complete freedom to go wherever they liked, whenever they wanted to: the paddocks and the bush were their playgrounds.

Mr Marsden spoke of the feeling of community at the time, which faded in the 1970s when growth and modernisation swept through Campbelltown.

In recent years, Mr Marsden said he has detected a return of that feeling of community.

Mac Koala

the population is proud of its city, with its new facilities, but still has ties to the bush and freedom.

Fortunately, no one with access to a bicycle is more than 20 minutes' ride from the bushland of the Georges River, which is largely unchanged since Mr Marsden was a boy.

In fact, he showed a photograph of Campbelltown that was almost completely devoid of trees. So our bushland may have even reclaimed parts of its old distribution.

The second speaker, Glenda Chalker, spoke passionately of the Aboriginal heritage of the Campbelltown area and the need for residents to understand and appreciate the rich history.

This link with the past is made especially vivid when, in the process of radio-tracking our koalas,

we occasionally come across cave art - drawings of wallabies, bats and fish, and hand stencils.

Ms Chalker commented on the most famous example of local rock art: the Bull cave. It depicts a huge bull that was one of a small herd which escaped from the first white settlement and established itself near Menangle on the banks of the Nepean.

Sadly, the bull cave has been defaced with orange spray paint and a prison-like grill has been constructed around the cave in a vain attempt to protect the painting.

Ms Chalker feels the cave is beyond repair. However, the cave is a major heritage item because it links Aboriginal and European history and the heart-breaking effects of its crude vandalism have the potential to teach valuable lessons to our community.

Don't forget our UWS koala pager 9962 9996.

Turn on, tune in and drop out ...

4/5/05

BATTERIES in our koalas' radio-collars last only 15 to 18 months, so we start trying to catch each koala as soon after 12 months as possible.

The trick is to find them in a suitable tree for catching.

Sometimes this is not easy.

Martine, for example, lives in Wedderburn Gorge and she's normally found in huge trees.

Her battery is now beginning to fail and we will have to catch her in the next week or risk losing her and her \$300 radio-collar.

Franceska's collar is also ready for a change and last week, fortunately, we found her on the ridge between Pheasants and O'Hares creeks at Wedderburn in a small stringy-bark that was suitable for a catch.

Fran was originally captured as an adult in September 1995 and we have been following her career since then.

It's been a traumatic life since Christmas 2001 when her territory was burnt out by fierce fires.

Drought has followed the fires, and her last cub, Marly, born in early 2001, survived the fires but not the drought.

Since having Marly, Fran has missed having cubs for three years and we were suspecting that she was growing too old to breed.

We captured Fran with no difficulties and found that she was heavier than she had been for some years and her coat was a good

Mac Koala



Nosey blighters: Up close and personal.

colour. Then to our great pleasure, when we felt her pouch, we found a fist-sized cub in residence. Fran's success, after a long period without breeding, shows that conditions must now be just right for breeding to occur.

However, the dry spell won't be making things easy for Fran, and the next three months will be critical for the cub as it grows bigger and demands more milk from its mother.

The cub is now about three months old and will be growing fast.

It should be poking its head out of the pouch in a month's time and leaving the pouch two months after that.

Before the cub becomes independent and leaves Fran we'll have to catch it and give it ear tags.

That will be in about nine months' time. We hope then that people will spot the cub and report its travels on our UWS koala pager number 9962 9996.

When thrill turns to sadness

WHENEVER the koala pagers ring, we always feel a thrill of anticipation.

Will the call lead to the tagging of a new animal or to locating a long-lost one?

Every call is important and as our research depends on these calls, we are grateful to anyone who reports their sightings.

Dead koalas provide us with information too, particularly if they are animals that we had previously ear-tagged.

So we were keen to investigate the recent report of a dead koala outside Camden Valley Inn.

The site was not far from the Nepean River, the river-bank vegetation of which we've been expecting koalas to use as a dispersal route.

Alas, on inspection we discovered a very large and very dead, grey cat lying feet-up on the verge.

In defence of the caller, the size, shape and colour were particularly koala-like; there was just the small matter of a tail.

This poor cat is the third grey

Mac Koala



moggy that has misled callers during the course of our research.

Two wombats, a fox and a big, grey possum have also led callers astray.

On one occasion we were even called to investigate a large grey plastic bag that was caught in the upper foliage in a tree.

The breeze caught the bag in such a way that looked just like the silhouette of a koala.

Then, of course, there was the infa-

mous stuffed wombat that some wag wedged up a tree (it's still there) at the top of Wedderburn Gorge.

On that occasion we climbed the tree before realising that we'd been conned.

Despite these false alarms, however, we'd rather have people make a genuine mistake than not call.

Three young kittens fared better recently than the Camden grey puss.

They emerged from the bush at the Wedderburn causeway hungry and bedraggled, to be rescued by our radio-trackers Lynn and Wendy.

Some heartless person had dumped them in the bush to face almost certain death from starvation.

Unfortunately, the gorge is a favourite spot for dumpers of animals.

In the past we have found cats, two chooks, two ducks, a blue-tongue lizard, as well as dead dogs, sheep and pythons.

Such thoughtless dumping is cruel for the animals and bad for the bush.

Report sightings on the UWS koala pager 9962 9996.

Elle's young son bobs up for Mother's Day visit

ROBERT is the son of Elle, a 13-year-old koala whose territory extends from the Wedderburn causeway up the southern side of Spring Creek towards St Helens Park.

We first found Robert in November 2003 when he was a newborn, the size of a pea in Elle's pouch.

A year later he was still living with his mother but had stretched his independence to a different branch of the same tree.

Soon after that we thought that he'd become fully independent, and last month he was spotted sharing the same tree as Alex, a mature male. Radio-trackers Wendy and Mick

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were puzzled recently to find Elle and Robert back together, sitting side by side on a branch.

After a moment's reflection, however, the reason for the unexpected reunion became obvious: it was Mother's Day.

We expect that Robert will remain in the Spring Creek area until at least August or September.

These are the dispersal months when young males move away from their mothers' areas.

At that time, however, Robert will still be less than two years old and certainly would pose no threat to

Alex or the other males, Nathan and Barney, which also reside near Spring Creek.

So provided he keeps a low profile, Robert may be able to hang around in the obviously healthy habitat near Spring Creek for an extra year.

Another cub, however, has been less lucky than Robert: Shirley's joey, whose photograph appeared in the *Advertiser* last week and also last month, has disappeared.

The cub should have been travelling on Shirley's back and we suspect that it may have been taken by a powerful owl.

These huge birds feed on small, tree-living mammals such as

possums and gliders, so a young koala would have fitted the bill perfectly.

Last year we saw a powerful owl perched only 20 metres from Shirley and the cub she had at the time, so we expect that Shirley is visited regularly in the hope that her cub is in a vulnerable position.

Such an end for Shirley's cub is terrible to contemplate. However, the powerful owls are now breeding and the chicks have to be fed.

So it is part of the cycle of life, and although it seems grim, a healthy koala population contributes to a healthy owl population.

Don't forget the LWS koala pager number: 9962 9996.

Creek a koala favourite

PETER Meadows Creek flows through one of Campbelltown's most beautiful bushland areas.

The tall turpentines, blackbutts, angophoras and greygums filter the light to create a serene, spiritual effect that attracts bushwalkers.

It also attracts koalas, and we have several tagged koalas, three with radio-collars, living in the shallow valley that runs for about 10km from near Kentlyn Primary School, across Peter Meadows Road, connecting with the Georges River near the Old Ford Road at the northern end of the Georges River Road.

Last week our most regular koala spotter reported from Peter Meadows Creek that a young untagged male was perched in a low fork of a tall greygum just within reach of our longest pole, but we would have only one chance to catch him.

If we failed to bring the flag on top of the pole into position just above the koala's head, he would climb to the safety of the upper branches. We hoped it would try to escape the flapping flag by climbing down the tree. Although we knew it was a long

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shot, we wanted to catch the young animal so that we could eartag him, then follow his movements around the district.

The koala had other ideas, however, for by the time we returned from the car with the pole and flag, he was safely 15 metres up and contentedly browsing on his luncheon of leaves.

Further up the valley, on another day, we caught Lyn, one of our oldest females.

We'd captured her first in Kentlyn Primary School in February 1996.

At that time she had a joey in the pouch and so was probably at least three years old then and at least 12 years old now.

We had to catch her because the batteries of her radio-collar were expiring earlier than expected and the radio signal was almost gone. When we caught her, her pouch was bare and although her coat colour was good, we suspect she's lacking her usual energy.

If you see a koala call the UWS koala pager, 9962 9996.

We always hurt the one we love

IN last week's column we mentioned that the shallow valley through which Peter Meadows Creek runs on its way through Ruse, Leumeah, Minto Heights and Kentlyn, on its way to the Georges River, is an attraction for koalas and bushwalkers.

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It is also an attraction for many interesting bird species, including a small colony of the "vulnerable" black-chinned honeyeaters.

Peter Meadows Creek is the only site known in the Sydney region where these birds can regularly be seen.

In fact, you would have to go to the Capertee Valley, west of the Dividing Range, to find another colony.

Peter Meadows Creek is therefore a highly significant place and must be conserved.

The valley is also an attraction for dumpers, who have left piles of waste on the edges of Peter Meadows Road.

Also attracted to the valley are trail-bike riders, who are carving deep gashes into the paths and setting up gullies that scour out after heavy rainfalls.

We even found a large and elaborate shelter with a steel roof, and beams, uprights and walls constructed from saplings cut live from the surrounding bush.

A large mound of ashes revealed that many hours had been spent around a substantial camp-fire.

Discarded bottles and other waste surrounded the site, which was also marked by the freshly axed tree stumps.

Additional threats to the valley are home-builders, who enjoy being surrounded by bushland.

However, the building sites must first be cleared and then fire-risk is diminished by clearing the shrub and grassland understorey beneath the trees.

Most new homes are accompanied by a dog or cat, non-native plantings and sewage treatment systems all of which disturb the local ecosystem.

So it's ironic that the bush is being damaged by the very people who enjoy its pleasures.

Come and talk to us at Riverfest, Sunday, June 5, at Koshigaya Park. Report all sightings on the UWS koala pager, 9962 9996.



Farewell: One of the region's favourite koalas, Shirley, pictured with one of her joeys, recently died of natural causes.

Shirley dies in native habitat

VALE Shirley. After a long and productive life Shirley died last week of natural causes in the heart of her 10 hectares of Airds/Ruse bushland where she had spent at least the past 12 years of her life.

Many Mac Club columns have reported some aspect of her life.

Our favourite story was when we received a letter from the Shirley Club of the Central Coast.

Members (all named Shirley) wished to come by bus to have a picnic beneath Shirley's tree.

On another occasion, a couple who wished to help conserve Campbelltown's koalas visited Shirley and her current joey and donated funding for our video *Koala Tales* which features Shirley and is now in school libraries across the district.

Shirley also has been a source of inspiration for the many children who have submitted stories and drawings

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to the Mac Koala Club.

She was captured in September 1993 after being spotted crossing Georges River Road from the triangle of bushland bounded by Botany Place that we now call "Shirley Reserve".

She was then aged 18-24 months years which made her more than 14 years old when she died.

She quickly lost her radio-collar and we didn't relocate her till 1996, the year she produced joey Bill who trekked across Holsworthy and reappeared at Alford's Point, having survived the bushfires of 1997.

Bill was released in Heathcote National Park.

Orin, Shirley's 1997 joey, has not been seen since weaning, but the 1998 joey, Lesley, was spotted in 2003, and in 2004 settled in Peter

Meadows Creek. Frank, the 1999 joey, and famous for his attempt to enrol at Leumeah High School, died recently at Ingleburn while Stanley, the 2000 joey, was probably taken by a dog.

Shirley suffered an injury in that attack which was still a small ulcer when she died.

June, the 2001 joey, is radio-collared and lives near Kentlyn Primary School, and has produced two female joeys of her own, both still "at home".

Michelle, the 2002 joey has not been seen since early 2004, while the joeys of 2004 and 2005 did not survive to weaning. Shirley failed to produce a furred joey in only one year, 2003.

So, all in all, a marvellous record. All members of the UWS koala unit will miss her. We will be interested to see who takes over Shirley's 10 hectares and hope that readers will report her successor on 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, June 15, 2005

Note:

No column published on this date

Water supports mother and joey

RIVERFEST was held recently at Koshigaya Park to celebrate the fact that Campbelltown local government area includes parts of Sydney's two principal rivers, the Nepean and the Georges.

Another aim of the festival was to inform citizens of the importance and fragility of these two rivers and their tributaries.

The Georges River system, particularly, is the key to the presence and survival of koalas in the region because female koalas are able to find the nutrients and shelter they need in the gullies and creek lines that feed the river.

An important area for koalas is the gully of Spring Creek, which enters bushland and koala habitat beside Woodlands Road at St Helens Park.

The gully is home to several eartagged koalas, including radio-collared Martine.

Martine lives in such a steep area and in such large trees that we were unable to capture her before her radio's battery ran out after a marathon 17 months.

Fortunately, we subsequently spotted her in a tree close to Wedderburn Road that was suitable for erecting our trap.

All went well and by 10pm Martine was safely in the trap.

To our delight we found a well-furred, female joey in the pouch.

Unfortunately, the joey soon departed the pouch, presenting us with the problem of squeezing her back in before we could release the pair safely.

This was easier said than done because, when the pouch has expanded to take a large joey, it is soft and floppy and almost impossible to fill with a writhing, wriggling baby with needle-sharp claws. We decided instead to rely on those claws to cling to the mother's back. So, as the mother emerged from the handling bag under the tree, we placed the cub on her shoulders. Martine took off up the tree with the cub hanging on like a rodeo rider. Fortunately, when we checked the pair next day, the cub was sitting happily on its mother's belly.

Motorists should be aware that Martine is close to the road and should drive with care.

Report sightings on the UWS koala pager, 9962 9996.

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Bush care this Saturday

THE future of koalas and other wildlife in and near Campbelltown depends on the way in which the community protects existing bushland.

An exciting example of how the community is working with Campbelltown Council to protect our bushland resources can be seen at Noorumba Reserve at Rosemeadow on Saturday morning.

Volunteer residents will be working with council officers this Saturday on the first of what will be many days of bush care.

Noorumba Reserve is on the southern edge of Rosemeadow between Appin Road, Lysander Avenue and Kilbride Nursing Home.

The reserve is special because its 66 hectares make up one of the largest remnants of Cumberland Plain Woodland in public ownership in south-west Sydney.

Most of Campbelltown's bushland is found on less fertile sandstone soils,

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which are less capable of supporting wildlife.

The Cumberland Plain Woodland must be preserved because it consists of a very different set of plants and also carries different fauna.

The council has released a Plan of Management for the reserve which can be viewed at the council's website www.campbelltown.nsw.gov.au.

This plan plots out the management issues and objectives in maintaining the reserve.

If any other residents wish to join the group of volunteers, they should contact the council.

Special forms must be filled out before volunteers can work on council projects.

But if residents would like to see what's involved, they should come along on Saturday morning to the junc-

tion of Lysander Avenue and Archibald Crescent.

So far no koalas have been reported to us from the reserve itself, but they have been reported crossing Appin Road adjacent to the reserve.

A common eucalypt species on the site is the River Red gum, which is a favourite koala food tree, so we predict that even if koalas are not at present living on the reserve, they eventually will.

Our major breeding area in Spring Creek is not far away and the cubs will move out from there along a corridor of bushland that links the reserve to the Georges River.

Another corridor follows Menangle Creek westward from the reserve to the Nepean River, so the site is an important link between the Georges and Nepean rivers.

We expect local residents to spot a koala in the reserve and report it to the UWS koala pager on 9962 9996.

Rats, a possum!

THERE was an interesting sight in Ironside Drive, St Helens Park, at 2pm last Saturday when a large male koala was spotted walking along the road followed by a conga line of humans.

He had eartags and turned out to be Barney, one of the four males that live in Spring Creek, and is well known to residents of Ironside Drive who regularly call the UWS koala pager number to report sightings.

On this occasion we received a call from the Koala Hospital at Port Macquarie.

It appeared that one of the Ironside Drive residents had called WIRES who notified Port Macquarie who called us.

We remind residents about our pager number 9962 9996.

This number is answered by an operator who knows nothing about our research but merely transfers the message to us.

If the operator sounds unenthusiastic, don't be perturbed. We'll respond as soon as we can.

■ Another interesting sight was of a small animal with a white-tipped tail crossing Allman Street from the car park between the mall end of Queen Street and the Moore-Oxley Bypass.

It was at the height of the storm on Thursday night.

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I braved the rain to investigate, thinking that if the animal was a water rat it would have been a major discovery.

Water rats have not been reported from Campbelltown for many years.

What I found was a bedraggled ring-tailed possum, with clumps of fur missing which disappeared into the protected doorway of a heritage building.

It either slid through a gap under the door or climbed up into an air-conditioning duct.

Ring-tails normally live in large nests called dreys that they build in thick foliage. Apparently the storm was too much for this possum's drey and had forced it to seek other shelter.

We ask people working near the area to be aware that there is a colony of ring-tails living in the car park, and perhaps the adjacent buildings, and not to leave rat poison out for them.

Ring-tail possums are beautiful, harmless and gentle creatures.

It is reassuring to know that they can live in the centre of the city despite the many dangers.

This is yet another reminder of the city's rich biological resources.

Habitat drains away

IN last week's column we described how Barney, one of our male koalas from Spring Creek, St Helens Park, was walking along Ironside Drive at 2pm followed by a group of intrigued residents.

Another resident rang later to say that she had seen Barney half an hour earlier that day walking along the footpath on St Helens Drive adjacent to the old St Helens Park House before turning into Ironside Drive.

We presume that Barney had been feeding in the large trees on the old homestead site.

That brought to mind a report from a resident, published in a previous column, of his father having been punished for throwing stones at koalas when he was a student in the school that used to be in St Helens Park House.

It's reassuring to know that 100

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years later koalas are still in the grounds. On the other hand, the site is now separated from the bush by a 200-metre wide treeless danger zone of dogs and cars.

Why Barney was on the move in this danger zone in the middle of the day is a mystery; normally it's very unusual to see them out of their trees during the day.

Perhaps Barney is smarter than we think: motorists could see him more easily and dogs would be under control during the day!

Alex, another of the Spring Creek males, was sighted some time ago in the nearby Moncrieff Reserve.

Like St Helens Park House, this reserve is surrounded by housing, making the trek to and from the bush

dangerous for koalas. We ask St Helens Park residents, therefore, to be alert to the sounds of dogs barking and to investigate immediately and call us on the UWS koala pager 9962 9996 if a koala is found.

We now know that Spring Creek and other tributaries of the Georges River are vital to the survival of koalas in our region.

One of the dangers to the river is coal mining that has cracked the river bed near Appin and led to the drainage of water.

On Wednesday, July 20, there will be a community information session on longwall coal mining at the University of Western Sydney, Campbelltown, lecture theatre 5 in building 21 starting at 7pm.

All members of the public are welcome to attend.

Bridal creeper chokes off native bushland

THE newly formed Noorumba Reserve Streamcare group was washed out on its first scheduled day of bush regeneration but met again last Saturday morning for its first task: removal of the weed bridal creeper.

This South African garden escapee is considered "a weed of national significance" and is among Australia's worst 20 weeds.

It invades undamaged bushland, smothers understorey native species and is difficult to remove because it forms a rhizome (underground stem) with many shoots and tubers, which form a dense mat under the soil surface.

This mat must be removed by hand with a small trowel without damaging the bulbs of native species that occur at the same depth.

So it meant working on hands and knees and will be a long job because if any part of the rhizome is missed another bout of weeding will be required after the remnant resprouts.

In the past few years biological controls (a leaf hopper, a rust fungus and a leaf beetle) have been introduced with some success, but none were evident in Noorumba Reserve.

The group was quite cheerful about facing the weeding task

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before it but we were all disheartened to find a group of forest red gums freshly hacked down.

Some of the trees were quite large and would have taken a considerable effort to fell. We ask nearby residents to investigate the sounds of any future chopping.

Peer pressure from local Rosemeadow residents will be required to stem the damage caused by unthinking people and restore the Reserve.

The felled trees would have been 10-15 years old and already a source of food for many species of insect that feed on the leaves, sap, nectar and pollen, and for predatory insects and spiders.

In addition, red gums produce millions of seeds and most of these finish up as food for ants. All these invertebrates provide food for the many species of birds that live in the reserve. So the tree fellers have had a broad ecological impact.

Remember the community conference on Longwall coal mining at 6.45pm for a 7pm start at UWS Campbelltown Building 21 Lecture Theatre 5 on Wednesday July 20. The conference is free.

Mining damage repairs

A COMMUNITY conference on longwall coal mining held at UWS Campbelltown last week featured an interesting discussion of how coal is extracted, how the Georges River has been damaged, what measures have been taken to repair the damage and what research is needed to prevent further damage.

Contributors included Gary Brassington of BHP-Billiton, Ken Hollands of the environmental sustainability branch of the Department of Primary Industries, speakers from the Environmental Defenders Office and the Macarthur branch of the National Parks Association and Allen Powell, of the Greens.

The focus of the night was a DVD made by Barry and Pat Durman, members of the Westcliff (BHP) Community Group, which showed damage and rehabilitation measures.

Enquiries about this DVD to Barry at bazpat@bigpond.com

The main point of the night was that although the mining company and the DPI want to reduce or repair environmental damage, mining involves a learning process about managing the environment.

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That is, when the longwall mining occurred under the Cataract River, the environmental officers learned much that was then put into practice when mining under the Georges River.

The geology of the Georges is subtly different from that of the Cataract and new damage occurred, providing new lessons.

The same rationale applied to the placement of massive amounts of waste rock that accrues from the mining and is spread over an expanse of bushland that is specifically cleared for it.

Topsoil is removed and replaced over the dumped waste material and the whole area revegetated.

Current methods are a vast improvement over previous ones but they still fall short of optimal.

Interested people should read the determination by the scientific committee of the National Parks and Wildlife Service at www.nationalparks.nsw.gov.au/npws.nsf/Content/longwall—mining—ktp

This report said longwall mining is a key threatening process for several endangered and threatened species.

It summarised the issues and listed the types of research that are needed and stressed that research is necessary to prevent damage to the heathland swamps of the sort that provide year-round water supplies to the Georges River and maintain the environment that sustains our Campbelltown koalas.

Don't forget the UWS Koala pager number, 9962 9996.

Please drive carefully in the lusty months ahead

We make a special plea to drivers to be wary during August and also during the koala mating season which follows.

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THE koala pager rang at 6.45am last week with a grim message: "Reporting just hit koala on Wedderburn Road, Campbelltown side of the gorge. May be serious injury, Andrew."

We immediately suspected the koala might have been one of the several tagged koalas that live in Wedderburn Gorge.

So when we rang Andrew back, we were relieved, at least, to hear that the animal was untagged.

Andrew volunteered to deliver him to us, but by 7am the young male koala was dead.

Andrew was deeply distressed and recounted how the koala had jumped out onto the road with amazing speed from a blind corner, giving him no time to stop. To his great credit, Andrew contacted us immediately, when it would have been so easy to drive on.

The koala weighed 9.75 kilograms which is a good weight, though not as heavy as Nathan, who rules the roost in the gorge.

His chest gland was quite large and was secreting the rich brew of chemicals that male koalas use to advertise their presence.

He also had the beginnings of the bony crest that

male koalas develop on the top of their skulls when they become mature.

So we suspect that this koala was five to six years old and almost ready to take on Nathan.

August is the time when young male koalas leave their mothers' territories and strike out on their own.

This means that they are leaving a familiar area to venture into the unknown. At such times koalas are very vulnerable and most of the dog kills and road fatalities that we have had reported in Campbelltown involve young males.

Koalas will be more visible during August so it is a good time to go koala spotting. Call the UWS koala pager on 9962 9996 if you see one.

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News

Camouflage theory well spotted

SOME years ago, we distributed small signs seeking information about koala sightings around the city.

They read: "Wanted: koala sightings. If a koala is spotted, call the UWS koala pager number, 9962 9996." I noticed that on one on my UWS office window a student had added: "What about koalas without spots?"

This gave us a good laugh but, actually, most koalas have a few spots on their rumps.

From below we see a whitish rump merging into a grey back with grey and white spots near the border.

This pattern camouflages the koala by breaking up its outline to protect it from predators hunting from below.

It's interesting to consider what

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terrestrial predator capable of capturing a koala in a tree might be hunting during the day.

There's the goanna perhaps, and maybe the python, but neither of those two would cope easily with an adult koala's claws though they may be able to catch a youngster.

Aerial predators such as the wedge-tailed eagle or the powerful owl might be a danger but the camouflage would be no help against them.

Considering all the koala's current predators, the camouflage would be most helpful against human hunters.

But the problem with that idea is that human predators have only been

a factor for the past 50,000 years, so hunting pressure is likely to have been quite strong to select for the spots.

Prior to 50,000 years ago, however, a fearsome marsupial predator called thylacoleo (pouched lion) may have been big enough and agile enough to catch a koala in a tree.

So maybe koalas have always been faced with ground predators.

These predators would have captured the uncamouflaged koalas more easily than those with spots.

This unequal predation would ensure that the genes for spots are now more common than the genes for no spots. So remember, if a spotted koala is spotted or not spotted call the UWS koala pager 9962 9996.

Nomadic koala males turn up safe and sound

TWO weeks ago, when we reported a roadkill at Wedderburn Gorge, we warned that August was the month when young male koalas are on the move. In response we have had calls from residents to report two other young males, both with eartags.

The first was Constable John (pictured), named after the police officer who rescued him after a road accident on Moorebank Avenue, Moorebank, in March this year. After Constable John had recovered from concussion we released him in Shirley's territory, which not only contains suitable food resources but is close to the Georges River, which young males tend to follow when they travel.

We didn't see him again until the sighting last week. In that time he had moved 9km north to Long Point. This is a notable journey in 5 months. Let's hope he doesn't return to Moorebank Avenue.

The Constable's vantage point, in a large tree on the cliffs above the river, is the type of place male koalas choose to bellow their presence because the sound will carry up and down the river. We would appreciate it, therefore, if residents of Long Point would keep an ear out for the bellowing that sounds like a cross between a pig grunting and a motorcycle starting.

The second male was Harrison, whom we had originally caught in a palm tree in Harrison Road, Kentlyn, almost two years ago, as a listless and rather skinny youngster. In contrast to Constable John, Harrison turned up just around the corner from his initial capture point in Georges River Road. 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. Both the

Mac Koala



Well travelled: Constable John has moved nine kilometres and made his home at Long Point.
Picture: Luke Fuda

Constable and Harrison were rediscovered on properties where German Shepherds were on guard duty.

A search beneath trees in Harrison's site revealed a large number of the distinctive koala faecal pellets indicating that he'd been resident in the dog's yard for some time.

We encourage all dog-owning residents near bushland to secure their dogs at night, particularly if they also hear any unusual bellowing. If this is not possible, then they should investigate immediately if their dogs bark.

Report any sightings on the UWS koala pager 9962 9996.

Mother, cub encounter thrills Japanese visitors

A GROUP of 15 Japanese students were excited to join radio-trackers Lynn and Wendy when they located veteran koala Amanda and her new cub at Ruse recently.

The students were from Campbelltown's sister city Koshigaya and had been selected to be youth ambassadors.

So it was a great delight for the students to undertake an activity so particularly Australian.

On this occasion, the tracking went well and the students may have gone home with the false impression that all you have to do to find a koala is to jump out of your bus and venture a few metres into the bush.

Amanda was being particularly helpful by selecting a tree close to a track, which allowed the students easy access.

She and her cub were also fairly low in their tree and both put on a good show for the visitors.

Amanda is not normally so obliging.

She usually chooses trees that are surrounded by a thick and impenetrable understorey and the canopy is often so thick that she and her cub are almost impossible to locate.

As a special treat for us, when we last captured her to change her radio-collar, she chose a tree that was

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surrounded by nests of huge bull-ants that leapt onto us and bit furiously.

Catch-up time for Amanda looms again in the next two months so that we can fit the cub with eartags.

At that time we will discover whether the cub is male or female and will ask our sister city to select a suitable Japanese name.

All our other cubs will also have to be caught soon for ear-tagging.

Of our other radio-collared females, June, Martine, Elle and Franceska also are carrying emergent cubs.

Only Lyn has failed to produce a baby this year and in contrast to last year, all of the cubs have so far survived the difficult transition from a milk to a leaf diet.

On an unhappier note, a motorist on the south-west freeway, near the Bargo exit, killed a young female koala last week. This is the second female that we have recorded from that area and it appears to be a breeding area.

We ask drivers to keep a special watch out from August to October, which are the danger months for koalas on the roads.

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

Collar project in need of help

TWO letters arrived last week, both containing donations to the Keith Longhurst Memorial fund for koala research.

The first was from a Boronia Park resident who had heard of our work and wanted to help conserve the local koala population. The second came from the Macarthur National Parks Association.

This association, usually known as the NPA, is a community group whose aims are environmental conservation and bushwalking and is not to be confused with the National Parks and Wildlife Service, which is the state government-operated body charged with protecting and managing the state's flora, fauna and reserves.

Both donations are vital to our koala studies and will enable us to replace the batteries required to run our radio-collars and to refurbish the collars and aerials.

Because we have six female koalas with collars, we need 12 collars if we are to change them every year.

The collars support a tiny transmitter and a relative large battery in an aluminium, water-proof container and an aerial that is connected to the collar in such a way as to project vertically for a few centimetres behind the koala's head.

Problems arise when the seals leak around the wires leading out of container to the aerial,

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and water enters and shorts the battery. The transmitter then fails and we lose contact with the koala.

Unfortunately, the more times we refurbish the collars, the greater is the chance that the seals will fail. We have to have a program, therefore, to regularly replace the radio collars.

At \$350 a collar, a cost of the program is considerable and the Keith Longhurst Fund, set up to commemorate the life of Campbelltown environmentalist Keith Longhurst and his dedication to the Georges River bushland plays a major role in its funding.

Other costs paid by the fund include veterinary materials, and equipment for capturing and studying the koalas. Transport costs are currently borne by our volunteer radio-tracking team.

All donations are managed by the University of Western Sydney and are tax deductible. Anybody wishing to donate should address cheques to the Keith Longhurst Fund for koala research and should send them "Attention Robert Close" to UWS Campbelltown, Locked Bag 1797, Penrith South DC 1797.

**Don't forget our koala pager,
9962 9996.**

Road kill plea

A KOALA was killed by a vehicle on Peter Meadows Road a few weeks ago. We have only just, unfortunately, received the report and the caller could tell us little about the animal.

We have ear-tagged several koalas at Peter Meadows Creek which is a breeding area so there is a good chance the dead koala may have been tagged.

By following the lives of all the tagged animals we can determine the movements, breeding success, life spans and causes of death of our local koalas.

Accordingly, we would like to discover whether the animal was one of our 100 tagged animals from across the district.

Mac Koala

We would be grateful if anyone who might have seen the animal killed, or noticed the body beside the road, would call us. We would like to know whether it was tagged and if so what the colours were; and if it was not tagged whether it was male or female, large or small.

Our radio-collared koalas provide more detailed information than those only ear-tagged. Shirley, who died some months ago, provided 10 years of information and was tracked on 330 occasions. For each sighting we recorded data such as the date, location, species of tree she was in, height of the tree and her position in it.

We now have a UWS third-year science student, Kate Warton, converting all that data into computer-generated maps covering such questions as: (1) what tree species did she use and was there a pattern of use? (2) did she use her territory in the same way every year and every season? (3) did her use of the trees and the area change when she had a young on her back? (4) did her use of the site depend on topography, creek line or soil type? (5) did fires in her territory change her behaviour?

We will be discussing the general findings of our research and Kate will demonstrate the use of the mapping programs at a meeting of the Macarthur branch of the National Parks Association on Wednesday, September 14.

The meeting will start at 7.30pm in North Campbelltown Primary School and everyone is welcome to attend. Enter the school grounds via Thomas Street.

Don't forget the UWS Koala pager number, 9962 9996.

Untagged koalas spotted a long way from home

TWO interesting calls came in via the UWS koala pager this week. Both came from National Parks and Wildlife Service officers and both involved different, untagged koalas from the Woronora Catchment.

The first was from near the Princess Highway and Lake Woronora in Heathcote National Park.

From a photograph taken at the time it looked like a young male. If so, the sighting is not overly significant because we know that young males can disperse considerable distances.

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As the crow flies, his location was only 14 kilometres from Wedderburn and several of our tagged males have travelled equivalent distances from Campbelltown. The sighting would have been more significant if the koala had been female because it would then be likely that a breeding area was nearby or would be established.

So when photographs of the second koala were sent to us we studied them

closely to see if we could determine whether the animal was male or female.

We were looking for the tell-tale greasy stain in the centre of the white fur of the male's chest.

This stain arises from a gland which produces a cocktail of about 30 compounds that the male koala combines to make his personal perfume with which he marks trees to advertise his presence to local males and females.

We were also looking for signs of a pouch or testicles. Unfortunately, there was always a leaf or similar obstruction

covering the relevant place. So we don't know for sure what the animal's gender is but we suspect that it's a young female.

The second sighting was 12 kilometres north of the first, in a backyard on the edge of bushland in North Engadine.

National Parks officers captured the koala to remove it from the danger of the household dog but released it in nearby bushland.

With luck it will establish a breeding colony at Engadine, perhaps with Eric, a koala that we captured and eartagged at Woronora in 1998.



Ouch! It ain't easy catching a beast

BRENTON Wilcox could hardly believe his eyes at 2am last Saturday as he watched a koala strolling leisurely up Tangara Crescent, Bradbury.

The koala then climbed up a kerbside tallowwood where it remained till the following morning.

Brenton's neighbour Peter Wignall searched through last week's *Advertiser* to find the pager number in the Mac Koala column only to find that it had been left off. Fortunately Peter was not deterred and rang friends at Wedderburn who were able to help.

When we arrived we discovered that the koala not only had eartags but also a radio-collar and turned out to be the long-lost Courtenay.

Her radio-collar had failed in March 2004 and despite continual searches since then, we'd only spotted her once, two weeks after the radio failure.

Our next task was to change the malfunctioning collar but first we had to catch her, not an easy job in a tall tree with many spreading branches.

Watched by several residents we managed to flag her down to a lower branch only a metre or two above the watchers' heads.

To bring her to ground, however, required that we flag her back to the trunk and if we did that she would have escaped back into the upper branches.

So Robert decided to climb onto the

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same low branch and armed with bag and gloves catch her when Courtenay was flagged back towards him.

All went well except that at the crucial moment Robert dropped the bag and instead of climbing back on top of the branch, Courtenay came underneath and finished up hanging from Robert's legs with her claws biting firmly into his calves.

The only way out of this predicament was to disentangle the koala from the human and gently drop the former into a blanket stretched horizontally by volunteer residents who then walked forward to make a sack with the koala safely inside.

She was then examined, weighed and measured and fitted with a new radio-collar.

Although in excellent condition, her pouch was empty and the teats shrunken, indicating that she'd not raised a cub this year.

We then released her back in Spring Creek where we shall follow her movements with great interest.

If any of the residents have digital photographs of Courtenay suspended from Robert's legs please send them to r.close@uws.edu.au and we'll judge the best one. Remember the UWS koala pager 9962 9996.

Stray koala gets Courtney act

LAST week we recaptured Courtney deep in suburban Bradbury by using one of the most unorthodox capture techniques that we've attempted in almost 200 captures.

The capture, which at one stage involved the koala hanging grimly from Robert's legs three metres from the ground, was watched and photographed by several residents.

We suggested a competition for the best digital photograph, but so far have received no entries. Perhaps all the cameras were non-digital! We hope that copies will be sent to r.close@uws.edu.au because we'd like a record for our files.

We returned Courtney to her former territory in Spring Creek and so far she has not ventured out of the bushland there.

Why she would have left her territory in safe bushland beside the creek, crossed Woodlands Road and a broad open area then walked into the built-up areas via Pinaroo Crescent to Tandara Avenue is a mystery.

All our other radio-tracked females have been remarkably faithful to their territories.

However, Kate Warton, a UWS third year student, is analysing the 330 records of our most-studied koala (Shirley) and has found that she moved to the outer limits of her terri-

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tory during the start of the breeding season which runs from September to March.

Some other researchers have suggested that female koalas will sometimes make special trips to find a suitable male. So perhaps Courtney was off on the rantan.

Does this mean that she doesn't think much of the Spring Creek males?

If so, Nathan, Alex and Barney will be most offended. The test will be if she wanders off again.

If she moves south instead of north she will enter the potential Landcom development site which lies between Spring Creek and Mansfield Creek in St Helens Park.

So far we have found only male koalas on this site, but if breeding females were found there, the cause to protect the bushland, associated creeks would be enhanced.

Another move to protect the Georges and Nepean Rivers that all Campbelltown residents can take is to attend the Rivers SOS concert at the Campbelltown Art Centre on Saturday, October 1. Bookings: 4634 1323. Report koala sightings on 9962 9996.

Campbelltown Macarthur Advertiser, Wednesday, October 5, 2005

Note:

No column published on this date

Some koalas know the roads, some not

MOTORISTS must be careful driving through the spotted-gum forest along Appin Road because a koala was reported walking along the median line last week.

Encountering a koala in such a situation could be very dangerous, so all drivers should mentally plan how they would react.

We suspect that koalas that appear on Appin Road are dispersing or displaced animals that are not familiar with the road and are easily confused.

One of our radio-collared females, Amanda, in contrast, has lived for 14 years beside the dangerous Peter Meadows Road and crosses it regularly. She appears to know the road intimately and when to cross it safely.

She also showed how to outwit koala researchers last week when Miyuki, an exchange council worker from Koshigaya, and UWS students studying animal science, came to see our koala tracking and catching techniques.

We had radio-tracked Amanda at 6.30am before the students arrived and finding her in a smallish ironbark decided that a catch was possible.

However, by the time the students arrived Amanda had moved 50 metres from her vulnerable tree to a huge blackbutt where

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she and her almost independent cub (Koshi/Gaya) were feeding contentedly in the upper foliage.

Some would say it was coincidence that Amanda had moved but we suspect she knew she was vulnerable and moved to safety as soon as the coast was clear.

Two days later and two kilometres up Peter Meadows Creek another mother and large cub appeared in a back yard of a suburban house in Ruse.

By the age of droppings beneath her tree we judge she had been in the garden for a couple of days to the amazement of the resident family, which has dogs.

We were unable to capture the pair at the time but she managed to escape the yard only to return to it a few days later.

This time we captured her and found she was a young female (now named Charlotte) with a tiny but mobile cub weighing only 450g.

We gave the mother a radio-collar and are now keeping a close eye on her.

We suspect all is not well: the cub is too small to be so independent and Charlotte is too light to be suckling. Time will tell.

Please report sightings on the UWS pager 9962 9996.

Rein in Rover: Danger dogs koala cubs

AN UNUSUAL call came in last week from a person who likes to walk and picnic in bushland beside the Georges River.

She and her husband were enjoying a walk recently at Minto Heights when out of the bush burst two brindle-coloured boxer dogs and baled them up.

This was a frightening experience and the two bushwalkers feared for their safety. Fortunately, they were able to find sticks and the dogs retreated.

Had no sticks been immediately to hand, however, a serious attack could have resulted.

On the same day our radio-trackers reported two German shepherd dogs in the bush near Peter Meadows Creek.

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Unfortunately, as our first caller reported, there is little that can be done. The council ranger or the police can be called but by the time they arrive the dogs are long gone.

The caller hoped that we would publicise her bad experience and hopefully the owners of the dogs would hear of it and ensure that the dogs are properly secured.

Campbelltown's easy access to bushland is one of its richest resources. Domestic dogs must not be allowed to destroy people's enjoyment. Bushwalkers should report dog sightings to the council ranger so that patterns of sightings can be developed for individual animals.

Free-roaming dogs are also a problem for koalas at this time of the year as the cubs prepare for independence.

At present, six of our eight radio-tracked females have large cubs.

There are likely to be many more.

We suspect that there will be approximately one breeding female for every 50 hectares of bushland between Minto Heights and St Helens Park. As that area amounts to more than 1000 hectares there could be at least 20 cubs preparing to leave.

Research on radio-collared pets has shown that unsecured dogs roam much further than their owners suspect and do a great deal of harm to local fauna.

Call the UWS koala hotline on 9962 9996 to report sightings.

Students spend damp day tagging along track

A group of UWS students studying animal science had an interesting day in the field radio-tracking koalas this week.

First, they found June, enjoying the peace and quiet of a retirement village in Kentlyn. She and her large cub normally choose to rest in cypress pines, which make them very difficult to spot.

We would like to know if she eats the cypress pines and a science student at UWS has been given the task of examining June's faecal pellets to see if she can identify fragments of cuticle.

Cuticle is the waxy, transparent, outer covering of the leaf that passes through the koala's gut undigested. The imprints of the outer cellular layer of the leaf remain in the cuticle and the pattern of cells is diagnostic for different tree species.

Leaving June, the students crossed Georges River Road and, following the specific radio signal of Lyn, plunged into the wet bush. Thick, wet bushland tends to bounce the radio signal about and the students had to work hard to find her.

Eventually she was located and, as usual, an extensive data sheet was filled out. These data are later entered in a computer database. As we first captured Lyn in 1996 we have more than 250 records for her, a massive resource.

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On their way back to their cars the students noticed a koala scat on the footpath outside Kentlyn Primary School and, so alerted, scanned the adjacent trees.

Sure enough, not three metres above our heads was a young female whose ear-tags identified her as Vicki, June's cub from last year.

When the primary school pupils saw us peering into the tree they knew exactly what was there as Lyn, June and her cubs have been regular visitors to the school since we first captured Lyn in the school grounds.

These school visits have been a source of great joy and education to a generation of pupils.

Later in the week, a caller discovered Lorraine, another of our tagged young females. Lorraine is the daughter of Irene, who lives adjacent to Shirley's old site beside the Georges River.

Lorraine has moved about one kilometre to intrude into Lyn's territory and appears to be ready to breed if the large, untagged male in an adjacent tree is any indication!

Report sightings on the UWS koala hotline 9962 9996.

Fatal fall? One little cub no longer in the treetops

LYNN and Marilyn, out radio-tracking, knew immediately from Amanda's behaviour that something was wrong. Normally she would be quietly hidden in dense foliage, and very difficult to spot with her cub close by.

On this occasion, however, she was fully exposed on an open branch and clearly distressed and fidgety and the cub was not with her.

After scanning the treetops in vain, Lynn and Marilyn, fearing the worst, then searched the ground and there beneath Amanda's tree found a small, grey body in the leaf litter. How had this young female koala died?

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Perhaps she'd fallen as a result of the recent strong winds. Cubs tend to take risks, but are so agile that they usually catch hold of foliage as they fall. Even if they hit the ground they are so light and so adapted to surviving falls that they seldom come to grief and then only if they land on rocks.

An inspection of the body showed some lacerations to the chin which would be consistent with a fall. When koalas drop they do a "belly flopper" with their arms outspread and their

head pulled back. However, on impact the chin would be thrown against the ground. We think that the major shock of the fall is absorbed by their enormous digestive system which acts like a vehicle's air bag in a crash.

The digestive system includes a two-metre-long fermentation vat called the caecum, and a large bowel that's four metres long. Together these organs comprise more than one quarter of the koala's weight and coiled over its middle give the koala its familiar roly poly appearance.

Most people think that the tubby appearance of koalas is due to their

being fat, whereas in fact the koalas carry little or no fat at all. This is partly to do with the koalas' precarious diet and partly because any unnecessary weight would use up energy when the koalas climb. This lack of fat means that koalas have no energy reserves for surviving emergencies such as fires.

The lacerations on the chin of the young cub may also have resulted from an attack by a predator or perhaps even a glancing blow from a vehicle. A post-mortem examination tomorrow should reveal the answer.

Remember the UWS koala hotline number 9962 9996.

A duty to be done after a cub's death

WHEN we found a 10 month-old cub lying dead beneath her mother Amanda's tree last week, it was doubly disappointing.

This was the cub we were to have named Koshi had it been male and Gaya had it been female.

These were the names selected by a group of Japanese students from Campbelltown's sister city Koshigaya who had come radio-tracking with us and had seen Amanda and the cub together in happier times.

The cub, in fact, would have been named Gaya, an interesting name because of its similarity to Gaia, the Greek Goddess of the Earth.

The Gaia Hypothesis states that all the living organisms on earth work together as though a single entity that is capable of manipulating its environmental conditions to suit its needs.

Had she lived, Gaya could have served as an additional link to forging co-operation between people of different countries and to protect and appreciate our shared natural environment.

Gaya's death won't be completely in vain, because it will assist in a major part of our research focus which is to discover the limits of koala habitat.

That is, what are the differences between an area of bushland that can sustainably support a mother koala and a succession of cubs, and

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one that cannot? Amanda, for example, has lost her cubs for the past two years at about the same age.

We need to know how these cubs died but usually they just vanish, probably picked up by dogs or scavenging birds.

So finding Gaya was a research opportunity.

Although not a pleasant experience, we conducted a post-mortem examination.

Last week we had speculated that she had died either from a fall or from a predator but the body showed no sign of any kind of trauma, apart from some scratches on the chin.

Nor were there any signs of abnormalities to the major organs.

The stomach, however, was relatively empty, whereas in an adult animal the stomach is packed solid with finely ground leaves.

Instead there was a small amount of yellow, milky material and little, if any, leaf.

At Gaya's age, she should have been supplementing her mother's milk with leaves and a strange material called pap which the mother produces from her bowels.

More on this next week.

UWS koala hotline: 9962 9996.

Death of a cub

IN LAST week's column we discussed the death of Amanda's cub, Gaya, at Ruse.

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Cubs face difficulty in changing from a comfortable milk diet to one that's basically toxic, unpalatable and tough.

For the first 170 days or so the young cub grows from an embryo that weighs only a gram to a furry, kitten-sized cub weighing 250 grams. At this time it starts to eat a curious liquid that the mother produces from her cloaca (the marsupial's single back opening).

This liquid is called "pap" and is believed to come from the caecum, the koala's enormous fermentation vat.

A few days after starting to eat the pap, the cub leaves the pouch permanently and continues to eat the pap for about a month. At the same time it starts to eat leaves but continues to suckle for up to another six months.

During the first six weeks of pap feeding, however, its weight increases rapidly to about 1 kilogram.

Researchers originally thought the pap was a transfer of the bacteria from the mother's caecum to colonise the cub's. However, an additional use may be to supply the cub with a rich source of usable nitrogen.

The bacteria in the caecum grow on cellulose from the leaves and extract nitrogen for their own growth. Normally in a koala, the nitrogen from these bacteria would be lost in the faeces.

For three months or so after leaving the pouch permanently, the cub clings tightly to its mother then slowly becomes independent. This was the stage that Gaya had reached as we had first seen her out of the pouch in June.

So she no longer had the benefit of pap and she had to supply her own energy to keep warm and to climb and she had to choose her own leaves. She would still have been suckling but if the mother was having difficulties the milk may have been poor in quality and quantity.

Amanda is now 14 and her teeth may be wearing flat, reducing her ability to extract nutrients from the leaves. Consequently, poor Gaya, whose stomach contained little milk or leaf material, probably died of starvation.

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

Mac's Koala Club

Latest cub now named Mushka

IN contrast to the sad news of the death of Gaya we can report that another cub from two kilometres further up Peter Meadows Creek is doing well.

That cub's mother, June, is the sixth cub of Shirley, the old female who died earlier this year. June is now five years old and has already successfully weaned two cubs, Shania and Vicki. To our surprise we recently discovered both of them within 100 metres of their mother.

We had to catch June to replace her radio collar and we needed to give the cub eartags before it became independent. So for some time we had been trying to find them in a suitable tree for setting up our trap.

Finally we found them almost invisible in a Cypress Pine in a retirement village at Kentlyn, set up the trap and by 9.30 pm, mother and cub were safely in our hands.

The cub, another daughter, weighed in at a healthy 2.7 kg. This weight contrasts with the miserable 1.5 kg of Gaya, which is further evidence that she died of starvation.

Naming rights fell to the Sisters in the retirement village who chose Mushka which means "little bear" in Russian.

Although koalas, of course, are marsupials and not related to bears, it's

interesting to know that the koala's scientific name, *Phascolarctus cinereus*, means "ashy-coloured pouched bear".

Mushka was soon sporting her new eartags and we released her with her mother beneath a nearby tree. We had to be careful not to separate them, so, as June emerged from the bag we delicately placed Mushka on her back.

June, who weighs only 7.5kg, then climbed the tree with Mushka, one-third her weight, hanging on. Imagine a 75kg human mother trying to climb with a 27kg child on her back!

Since their release we have radio-tracked June twice to check that all is well and the pair are still together.

Another capture at Bellbird Lane, Wedderburn revealed a young male, Kade, whom we had first captured in Hodgsons Close, a few weeks earlier. Kade had moved about 1.5 km in that time and had crossed the Wedderburn plateau. We'll be most interested to discover if he's still on his travels or has settled down.

Help us plot the movements of all our 120 tagged animals by reporting sightings on the UWS koala pager 9962 9996.

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Mystery of females going walkabout

A FEW weeks ago we reported that one of our radio-collared female koalas, Courtney, left the safety of the Spring Creek bushland at St Helens Park and wandered up into the hazards of suburban Bradbury where she was reported to us by astounded residents.

We then captured her in a roadside tree and returned her to Spring Creek. So when we received a call from residents of St Helens Park last Saturday to report a koala in a small tree in the verge of Melba Place, we suspected that Courtney was on her travels again.

Arriving at Melba Place we found the koala not two metres from the ground in a small paperbark bush. After an easy catch we discovered from the animal's eartags that she was Brittany, Courtney's cub born in 2002.

She weighed a healthy 7.5kg but her pouch was empty and her milk gland was not swollen, indicating that she had not suckled recently.

The fact that two female koalas should have left the Spring Creek bushland to face the dangers of suburbia has us intrigued. Normally it's the males that go walkabout while the females set up territories adjacent to their mothers.

Consequently it will be important to discover whether the two females settle back beside Spring Creek or wander off again. We can follow Courtney's movements via her radio-collar, but depend on local residents to spot Brittany and call.

One of the longest treks that we have recorded for a female was that of Elle who was rescued as a youngster by WIRES and released at Wedderburn in 1993. Ten years later we found her near the junction of Spring Creek and the Georges River, a direct journey of about 4km.

We've radio-tracked her since her recapture and caught her last week to change her radio-collar. She was in poor condition and, like Amanda, has lost her cub this year after it emerged from the pouch.

Both Elle and Amanda are about 14 years old and appear to have been unable to provide sufficient nutrients for their cubs at the most critical time.

It goes to show that life in the bush can be pretty tough for wild animals. However, with the help of residents we are learning much about how koalas live in the Campbelltown bushland.

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

They're breeding like . . .

LITTLE did we realise 15 years ago, when we began our research, that we would ever be able to announce the sighting of nine koalas from five different sites on the edge of Campbelltown in one week.

The first caller reported a mother and young on the Campbelltown side of Wedderburn Causeway.

The mother turned out to be Kris, who was first captured as an adolescent when she was rescued after she had jumped into the water at the junction of the Georges River and Spring Creek in July 2002.

She has since settled in the area alongside Martine and Elle and is breeding successfully (see picture).

Next we had a call about an untagged young male koala in Kentlyn Primary School, the territory of June and her cubs Shania, Vicki and now Miska.

Soon after that we had a call about another young and untagged koala a kilometre further down Peter Meadows Creek beside Old Kent Road. This is the territory of Lyn.

Another call came in to report the sighting of Charlotte and her young cub who seem to be muscling in to Lyn's territory.

Then we were told about another female, untagged, with a large cub a further 2 kilometres down the creek beyond Peter Meadows Road. Then, 1.5 kilometres beyond that, another untagged koala was spotted beside the same creek.

These sightings show that the koala population in Campbelltown is in good shape.

In addition, the number of untagged

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Koala sighting: Kris with her yet-to-be-named cub.

animals tells us that even with more than 120 koalas tagged we have captured only a proportion of the population.

The sightings also show that several cubs have survived despite the loss of three cubs from our older females.

The foliage should be at its most palatable after the recent rains, so we expect all the current cubs to survive till they are weaned.

One of our most consistent callers who regularly walks the length of Peter Meadows Creek tells us he has also noticed an increase in foliage density since the rains.

This augurs well for our koalas and we expect to continue to receive plenty of reports of koala sightings.

The UWS koala pager is 9962 9996.

Students attend science school

LAST week, 80 year 9 and year 10 students from across the state gathered at

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UWS Campbelltown for the Siemen's Summer Science School for three days of demonstrations, laboratory and field work.

Professor Robert Close was one of the UWS academics who spoke to the students then later took a group radio-tracking.

Prof Close demonstrated koala catching techniques by lassoing one of the unsuspecting and wide-eyed students high up in the audience with a noose on the end of the six-metre aluminium catching pole.

However, the professor's main aim was to illustrate how biologists solve problems.

In the case of the Campbelltown koalas, the initial problem was that conservationists and developers disagreed on whether a development at Wedderburn would significantly affect the newly discovered koala colony, and secondly that almost nothing was known about that colony.

Students at the school were asked what questions they would ask to solve the problems.

The professor then told students that the UWS researchers had now answered most of the questions.

It is interesting to consider that had the original development been proposed today in the light of our research findings, the future of the koalas would not have been a major argument in the dispute.

Nevertheless when the students were asked if they would vote for or against the development, they all voted against.

What was saved in the koala battles over Wedderburn was not just the survival of a koala colony, but an almost pristine river gorge and all the associated plants, fungi, microbes and vertebrate and invertebrate animals of which bushland is composed.

As one of the students in the radio-tracking group said: "I didn't know Campbelltown had koalas. I didn't even know Campbelltown had bush - it's marvellous."

Call the UWS pager 9962 9996 for koala sightings.

The team will be short-staffed till late January 2006 so we may be a little slow in responding.

New laws will aid protection

WHILE most readers would probably not deal frequently with legislation in their day-to-day lives, everyone would be aware that there are laws governing a range of different aspects of our lives.

This includes legislation that seeks to protect our native plants and animals, including species which are considered to be threatened.

These include the koala, as well as a range of other local species such as the giant burrowing frog, broad-headed snake, powerful owl and eastern pygmy possum, to name but a few.

There have been some recent changes to the state legislation which protects the flora and fauna, and some trials of new procedures will also be happening in the near future.

On the legislation side many people would not be aware that included are ecological communities which are currently referred to as "endangered ecological communities".

These listings cover not just one species but the vegetation and habitat for a range of species that comprise an ecological "community".

The legislation has recognised that species are under different levels of threat for some time, with a "vulnerable" listing being for species that are facing a high

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risk of extinction in NSW in the medium-term, and "endangered" species having a very high risk of extinction.

The changes to the legislation add similar categories for the ecological communities. There is a new website which contains information on these threatened species and communities: www.threatenedspecies.environment.nsw.gov.au

At a local level another change that will be occurring is that all councils in NSW are required to prepare a Local Environment Plan that is consistent with a standard template. This means that within the next five years councils will be moving to change their current planning documents.

These are important as they influence what development can occur, and where. We hope that the threatened species and communities will be considered during the preparation of these plans.

There is also usually the opportunity for public comment on the plans, so if you are interested it will be something to look out for in future years.

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

Note:

No column published on this date

Campbelltown Macarthur Advertiser, Wednesday, December 28, 2005

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