

# GUM TIPS





Issue 2007 No 1 March 2007

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**CLOUD 1993 - 2007** 

#### **OUR CLOUD**

On the 27<sup>th</sup> January 2007, Cloud shut her eyes and went to sleep for the final time. This sweet, gentle, timid koala came to us courtesy of the 1994 Christmas Bells Plains bushfire, where she suffered horrific burns to her paws, ears, face and limbs. Cloud was only a young koala at the time, and after a long period of treatment, she responded with most of her injuries healing well, but unfortunately the scarring and post burns damage was such that she could not be returned to the wild.

Cloud became an international ambassador for the plight of Australia's wild koalas, featuring on many documentaries, news items, and articles in magazines, journals and even childrens' books. Cloud was a "teacher" for wildlife veterinarians, wildlife vet nurses, wildlife carers and researchers who came from all over the world to see what can and does happen to all animals who actually survive being burnt in bushfires.

"Cloudie" (as she was affectionately known) never attempted to bite anyone or show any aggression, and accepted whatever we did with grace. Cloudie became the surrogate mother to other koalas' joeys, who were often seen playfully jumping on her back – Cloud had the patience of a saint!!!

As time went on, and age began to creep up on her, all the staff could see that she was starting to become quite frail. In the weeks prior to her death, Clouds health began to deteriorate rather quickly and unfortunately she did not respond to treatment.

Thankfully everyone accepted and understood her time had come, and the decision was made to ease her suffering and let her go. Cloud was much loved and her passing broke many many hearts.

So when you hear the breeze gently blowing and rustling through the eucalypt trees, stop and listen for this is the sound of the spirit of the koala calling to you. And now Cloud has joined them.



## **From the President**

#### **New Web Site**

At last our new web site is on line. I expect there will be a few bugs to iron out but it's looking good and easier to use. I am interested in your response so send me an email and tell me what you think.

Nothing good ever happens without problems; our old website lost some data so if you thing you are effected please contact us at <a href="mailto:info@koalahospital.org.au">info@koalahospital.org.au</a> or <a href="mailto:adoption@koalahospital.org.au">adoption@koalahospital.org.au</a>

### Friends of the Koala Hospital

"Friends" has been formed to be the local fund-raising arm of the Koala Preservation Society; to assist our hospital to continue to develop and apply new strategies to the rescue and treatment of sick and injured koalas.

To continue to fund the work of the hospital and also extend and improve facilities, we will need a strong and enthusiastic group of volunteers to develop and undertake a range of promotional and fund-raising activities within our local area.

Cloud – always remembered



Bob Sharpham president@koalahospital.org.au

#### THE SUPERVISORS' REPORT

Life has been so busy for the last three months, it's almost been scary. The hospital is bulging at the seams, with basically every unit, every yard and every aviary full.

Thankfully, not all of the admissions are due to motor vehicle accidents, and dog attacks. A large proportion of the admissions are koalas who previously would have normally simply been relocations, are now coming into the hospital to be screened for Chlamydia as part of the Sydney University drug trial.

It is not surprise to us, that a number of these "relocation" koalas are showing a positive screening for Chlamydia. These koalas can then be treated.

We have many new volunteers on shift now, who are quite surprised at the workload, but are chipping in, and enjoying it all nonetheless.

We have a large number of joeys at present; in pre-release who once they have reached their goal weight will be ready to go.

Thankfully, the wonderful rain we have recently received has certainly reduced all chances of further bushfire problems, as we have just recently experienced (see article in this issue). The recent rain, has also allowed good new growth of leaf, which has been much needed over the hot dry period.

It looks like its going to be exciting times ahead, with all the planning for 2007 and beyond. The new venture "Friends of the Koala Hospital" will be a great help and promotion, and there are many new ideas on the drawing board.

All in all, even though we are snowed under with lots of koalas being screened and cared for, 2007 is shaping up to be a very big year.

Cheers, Cheyne Flanagan supervisor@koalahospital.org.au



**Zzzzzzz** 







Someone's got to stay awake

#### NIGHTMARE IN THE FOREST

A bushfire had been burning in the Cairncross State Forest at Pembrook, 25 minutes drive west of Port Macquarie. Once the "all clear" was given by N.S.W. Forestry a search and rescue team from the Koala Hospital was dispatched to the area to search for burnt and/or injured koalas and other wildlife. On this occasion the team consisted of Cheyne, Judy, Peter and Barbara who were accompanied by Bruce from Forestry.

We were all decked out in our very bright fireman's overalls, boots, helmets and walkie talkies making it very easy to keep each other in sight and contact (you would think). The idea is that we all walk in a line spread out across the area, far enough apart to be able to see each other.

Day one went to plan and we were very pleased to find one koala in a tree looking very healthy and untouched by the fire on the fringe of a burnt area. The only other sighting was of a dead burnt tree snake. There were no burnt carcasses on the ground indicating that all forms of wildlife in that particular area seemed to escape the fire.

Day two was a slightly different matter, we fanned out once again in a line and proceeded to search the area. Judy and Peter were on my right and were keeping in sight and Cheyne and Bruce were to my left. Inside the actual fireground everything looks the same, just burnt trees and ash all around so getting ones bearings is very difficult. After awhile I lost sight of Cheyne but could still see Peter and Judy. I called on the walkie talkie for Cheyne to give me a kooee and she sounded as though she was up in front of us. Knowing Peter and Judy were keeping in sight of one another I thought I should try to keep up with Cheyne so off I set.

I walked down into a gully and up the other side continuing on in the direction that I was sure Cheyne's kooee came from. After some time I hadn't sighted her I asked for another kooee and it seemed to come from behind in another direction. I called to Peter and Judy to kooee and they also seemed to still be behind me. I was getting confused and said that I would stay where I was until someone could see me. Eventually Peter said he could see me and that I should turn around and walk back which was the direction from whence I came. I walked approx. 12 steps and asked Peter if he could still see me to which he replied – no! I walked back to where I was standing when he said he could see me and asked him if he could see me now – no! It turned out to be Cheyne he could see and not me.

Panic stations started to set in as we were told that there were wild dogs frequenting the area and that we should keep our eye out for them. (I must say that until that moment I hadn't given them any thought). Kooee's were floating back and forth for which seemed like ages and Peter comforted me by saying "we are here to look for koalas, not for Barbara". Thanks Pete.

Eventually Bruce following my kooees found me and was surprised at how far I had walked – totally in the opposite direction. I can tell you I was never more relieved to see him than I had been in my entire life. He guided me back to the others and after much ribbing we continued our search, everyone keeping a close eye on me in case I got the wanderlust again.

We moved on to another area and again there were no signs of any burnt wildlife. The only sightings we made this day was a wallaby which came hopping by and a goanna, both surviving the fire unscathed. A few birds had also returned to the area.

By the end of day two we were all feeling very tired and thankful that apparently all animals had survived this bushfire. However there is still a very high risk of more bushfires in the Hastings area so we will dust ourselves off and be ready to go out again if necessary.

Barbara

EDITORS FOOTNOTE: It was decided after our two day fireground rescue search and Barb's little "walkies" off half a kilometre in the opposite direction, that we are going to place a radio tracking collar on Barb before she leaves on the next fireground search. At least then we can track her movements and find her at the end of the day. Editor.

#### **EDUCATION REPORT**

The month of January started off well with confirmation from AAT King Tours confirming arrival dates for the year 2007/2008.

Australia Day was a successful day at the Port Macquarie City Bowling Club where we raised \$250. I presented the President with a Certificate of Appreciation on behalf of the Koala Hospital.

The following day we had a sausage sizzle at Harvey Norman where we raised \$400 and presented Bill Pritchett with a Certificate

On both occasions we received good media representation thanks to the good efforts of Carol our Media Coordinator

Port Macquarie High School have also requested that I do regular presentations at the High School and they will also bring groups out to the Hospital for tours

Geoff Duck from Port High School has confirmed with me that he will be bringing The Canadian Schoolboys Rugby Union players for a visit on the 19<sup>th</sup> March

I have successfully negotiated with Tacking Point Tavern that all proceeds for the month of March from their Thursday night Raffles and Open Day on Sunday 25<sup>th</sup> will be donated to the Koala Hospital.

The Management has also given us special permission to place donation buckets on both bars for that month

We have had requests from the Salvation Army for a presentation in April and then every month from then on

Mike Kain and I have now completed the presentation DVD and presenters' aid on a Day in the Life of the Koala Hospital. This DVD can be used for presentations to schools, clubs and community groups.

Six copies will be made available to authorized personnel.

This Saturday 10<sup>th</sup> Feb will see the completion of the mural in the Education Facility as Margaret and her team will be working from 7am.

Brian Westoby has assured me that by the end of this month??????? The shade cloth will be secured to the ceiling of the Education Facility

We have had good feedback from the Community and local businesses in reference to a fundraiser for the purchase of a mystery item.

#### **JULES**

education@koalahospital.org.au

#### FRIENDS OF THE KOALA HOSPITAL

"Friends" is a new fund-raising activity of the Koala Preservation Society.

"Friends" has been formed to assist our hospital to continue to develop and apply new strategies to the rescue and treatment of sick and injured koalas.



To continue to fund the work of the hospital and also extend and improve facilities, we will need a strong and enthusiastic group of volunteers to develop and undertake a range of promotional and fund-raising activities within the Port Macquarie - Hastings area.

I believe we have a largely un-tapped source of talented people, retired and living in the residential villages around this area.

I know a number of these people personally, and it is my belief that many would be pleased to have an involvement like "friends" to occupy some of their spare hours.

Many of these folk held substantial positions in the academic field, commerce, and industry during their working lives.

I believe it will be part of my function, as chairman of "friends" in its infancy, to seek out these people and to put their many talents to work in support of the koala hospital

As well, I'm sure there are a great many potential "friends" in the wider community who will come forward as word gets about of our activities.

I look forward to meeting, and working with them all.

Geoff friends@koalahospital.org.au



Ahhhh LUNCH

Thanks nurse!

## **Technically Speaking**

#### **News from the Koala Infectious Disease Research Group**



The research has been progressing very well this season. We have had a good number of koalas enrolled in the trial already. We have been actively recruiting both diseased animals with good prospects for release, and subclinical animals. Subclinical animals are cases which carry the Chlamydial organism, but are not showing external signs of disease. We are very pleased to report some early indications of treatment success. This has meant we have released a number of animals once their trial has finished. Two of these animals

have been spotted alive and well in the days and weeks following their release. We expect that the others are doing just as well.

We would like to take this opportunity to thank KPS for its tremendous partnership in this research particularly with regard to infrastructure. Eight new yards in yard ten and four research 'aviaries' in yard seven have meant that good numbers of koalas can be enrolled in the trial due to the increased carrying capacity of the hospital. It is vital that the research achieve certain numbers of koalas in each treatment group for the results to be statistically valid. The outdoor yards in particular are very welcome. The trial koalas will enjoy spending all but the first two weeks of their treatment in these yards. The animals which have used them so far appear to be much more settled in this environment than inside or in aviaries. They have been using the slightly raised cross perches to good advantage. The public can get a very good view of the animals from here so there is added educational benefit to having animals in these yards. Moreover, we believe that these additional yards will be very useful in the future for KPS, in order to move injured and sick koalas more rapidly into the daylight and into a less stressful environment.

We have welcomed three new members to our team. One is Andrea Reiss, a wildlife vet with many years of experience in zoo and wildlife medicine. Andrea's special interest is wombats, a close cousin of the koala. She has spent many years working closely with the Northern Hairy Nosed Wombat, one of Australia's most endangered animals. Another new member of our group is Tiziana Beninati. Tiziana will be working with koala ticks and the diseases that they may spread. Our newest member to the group is a new PhD student Quintin Lau. Quintin will be working in Sydney on the immune system of the koala.

We look forward to continuing the fruitful relationship with KPS. We are learning new things every day about koalas and their diseases. Without the continuing efforts of all parties involved the research would move much more slowly. Many thanks to all who have helped out.

The University of Sydney
Faculty of Veterinary Science





Dr Damien Higgins with Hospital Supervisor Cheyne Flanagan in the Treatment Room

#### THE GUT SYSTEM OF A KOALA

There are four marsupial species that feed on eucalypt leaf – the Greater Glider, the Common Ringtail possum, the Common Brushtail possum and the Koala, with both the Koala and the Greater Glider having eucalypts as their principal food source.

To deal with this diet of eucalypt leaves, koalas have not only a large and complex digestive system (see diagram), but have adapted their whole lifestyle to suit.

Starting with the selection of the right leaf to eat, the koala then grabs a branch, sniffs the leaf to check the quality (and probably the toxicity level) for consumption. The leaf is then broken off with a strong biting action and through various actions, is masticated (chewed), mixed with saliva to allow enzymes to begin the breakdown process, and swallowed – ending up in the stomach. Once there further breakdown occurs through acids and enzymes. This is the stage where most of the toxic eucalypt compounds are removed (eg: phenols and essential oils) and are taken away via the blood to the liver to be filtered and excreted in the urine (part of the reason for the strong smell). Phenols, essential oils and other toxic compounds if consumed by other animals/humans would be fatal.

It's important to note that koalas do not "chew" their leaf as such, but go through a single size reduction process (done in a methodical fashion). Provided they have unworn, sharp interlocking cusps (points) on their molars, this is efficiently done, but aged koalas with worn, flat teeth cannot achieve good breakdown of leaf. The result for them is an inability to make use of this food and they basically slowly starve to death.

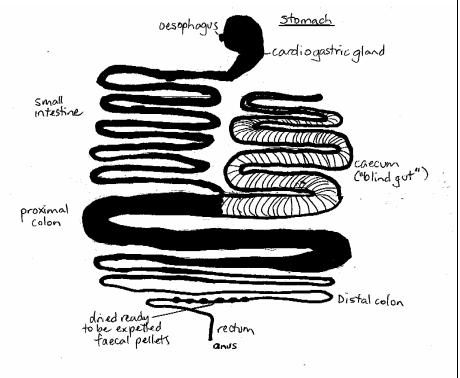
The food then moves via peristalsis (an involuntary muscle movement) into the small intestine, where further breakdown occurs with fats, proteins and other nutrients being absorbed into the bloodstream.

The next destination is the unique and interesting caecum (which is 23% of the total intestinal length) an up to 2 metre long "blind gut" (no end) housing an amazing array of micro-organisms, which have the job of breaking down carbohydrates. The proximal colon (the next stage) also is a site for microbial activity, and as koalas lack the digestive enzymes to breakdown cellulose and lignans, these microorganisms accomplish this (via fermentation) in the caecum and proximal colon, and free up the carbohydrates for energy use.

Finally the remaining unused food waste moves into the distal colon (again by peristaltic action), where water is extracted and some is reused within the body. The final product is the dry, football shaped pellets that are then passed out and breakdown in the soil. This efficient extraction of water is one of the reasons

why koalas drink very little available free water, enabling them to remain high in the trees.

Koala faecal pellets once dropped on the ground, have another use besides returning nutrients to the soil. There are species of moths that lay eggs in the dried pellets their larvae feeding and exclusively on the faecal material, grow and hatch out. Koala researchers wishing to observe how old a faecal pellet is (to determine the time frame since koalas were in the vicinity) can examining ascertain this by whether the pellet contains a fresh larvae or simply a vacant shell. Nothing is wasted in nature and every component can tell a story.





# **HOSPITAL REPORT**

ADMISSIONNAME	REASON	RESULT
22.09.94 Cloud F	Bushfire Victim	Euthanased 27.01.07
6.11.00 Kempsey Carolina F	Head Trauma—Motor Vehicle Accident	Permanent Resident
11.10.01Bonnie Fire F	Bushfire Victim	Permanent Resident
22.10.04 Tractive Golfer M	Underweight	
21.01.06 Wiruna Lucky F	Cataracts both eyes	
30.05.06Links VTR M Joey	Joey - orphaned	
26.06.06 Ocean Therese F	Broken Jaw – Motor Vehicle Accident	
26.06.06 Ocean Kim F Joey	Joey of Ocean Therese	
11.07.06 Lady Nelson Woody M Joey	Joey - orphaned	Released 21.02.07
29.08.06 Oxley Lucky Joey F	Walking on Highway no sign of mother	Released 13.02.07
24.09.06 Belah Irwin M	Joey of Belah Frankie	Released 13.02.07
06.10.06 Central Kane M	Motor Vehicle Accident + puncture wound L Leg	Released 20.12.06
10.10.06 Denning Alena F	Chlamydia (Wet Bottom)	Euthanased 21.12.06
18.10.06 Bonny Jude M	Conjunctivitis	Released 02.02.07
01.11.06 Acacia Tim M	Conjunctivitis	Released 18.02.07
05.11.06 Hudson Nick M	Wet Bottom	Released 18.02.07
12.11.06 <i>Blair Thomas M</i>	Dog Attack	Released 01.12.06
13.11.06 Calwalla Paul M	Chlamydia (Wet Bottom)	Released 18.02.07
15.11.06 Cathie Shannan Liam M	Conjunctivitis L eye	Released 13.12.06
21.11.06 Ellenborough Kelly F	In Shed with Dogs	Released 02.02.07
27.11.06 Cathie John Joey	Orphaned – Home Care	
29.11.06 Everard Cutie (F)	Found on Road - checked	Euthanased 01.12.06
29.11.06 Elizabeth Noddy (M)	Eye problems	Released 07.02.07
02.12.06 Dunbogan Sandy F	Lethargic, displaced	Euthanased 18.12.06
02.12.06 Hassal Coral F + joey	In yard with dogs - checked	Released 02.12.06
02.12.06 Grandview Jem	On ground	Dead on Arrival
03.12.06 Blair Thomas	On Ground	Euthanased 08.12.06
04.12.06 Central SES	Tree felling - observation	Released 08.12.06
05.12.06 Mermaid Brodie	Fell from tree/dog attack	Died 05.12.06
07.12.06 Dunbogan Jim	Suspect Wet Bottom	Released 09.12.06
08.12.06 Oxley Griffin	Motor Vehicle accident	Released 31.01.07
10.12.06 Newport Bridge Gloria	Sitting on bridge – wet bottom	Released 08.02.07
12.012.06 Newport Bolfin -	Wet Bottom	Euthanased 14.12.06
13.12.06 Flinders Lighthouse	Drowned in pool	Dead on Arrival
20.12.06 <i>O'Briens Ray</i>	On Ground	Died 26.12.06
23.12.06 <i>Antroy</i>	Ground on ground – conjunctivitis both eyes	Euthanased 01.01.07
24.12.06 Macquarie Peter	Chlamydia (Wet Bottom)	
25.12.06 Lake Christmas F Joey	Abandoned – Home Care	
26.12.06 Treetop Boxer	Chlamydia (Wet Bottom)	Released 19.02.07
27.12.06 Kundabung Raven	Motor Vehicle Accident	Dead on Arrival
01.01.07 Burraneer Henry M	Tick infestation - underweight	
02.01.07 Grandview Tridigit F	Suspect motor vehicle accident – checked	Released 02.01.07
02.01.07 <i>O'Briens Fiona F</i>	Conjunctivitis	Released 07.02.07

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njunctivitis	
	Euthanased 10.01.07
ronic hyperkeratosis	Euthanased 12.01.07
e injury, debilitated	
ured Left Hind Leg	
lamydia (Wet Bottom)	
perkerotosis	Released 25.01.07
und on ground	Dead on Arrival
spect Chlamydia (Wet Bottom)	Release 22.01.07
dangerous area – checked	Released 23.01.07
vanced Chlaymdia	Euthanased 23.01.07
lamydia (Wet Bottom)	Euthanased 29.01.07
lamydia (Wet Bottom)	
vard with dogs – checked	Released 29.01.07
lamydia (Wet bottom)	Euthanased 31.01.07
vanced chlamydia	Euthanased 30.01.07
njunctivitis	
lamydia (Wet Bottom)	
lamydia and Conjunctivitis	
ssible fall from tree – found on ground	
e problems	
ngerous area	Released 05.02.07
ey of Ocean Mary	Released 05.02.07
ard with dog	
vanced Chlamydia (West Bottom)	Euthanased 06.02.07
und on ground	Dead on Arrival
rsalcysts	Euthanased 10.02.07
njunctivitis	
ard with dogs	Euthanased 13.02.07
laymdia (Wet Bottom)	
andoned joey – fell from tree - maggot infested	Euthanased 20.02.07
lamydia (wet Bottom)	
ting low in tree – lost weight	
tor Vehicle Accident – slight concussion	
tor Vehicle Accident – injured penis	
spect Chlaymida	
spect Cniaymida ute Diahorrea	
n	pinctivitis  ponic hyperkeratosis injury, debilitated red Left Hind Leg amydia (Wet Bottom) erkerotosis and on ground peet Chlamydia (Wet Bottom) angerous area – checked anced Chlaymdia amydia (Wet Bottom) ard with dogs – checked amydia (Wet Bottom) anced chlamydia junctivitis amydia (Wet Bottom) amydia and Conjunctivitis asible fall from tree – found on ground problems gerous area y of Ocean Mary ard with dog anced Chlamydia (West Bottom) and on ground salcysts junctivitis ard with dog anced Chlamydia (West Bottom) and on ground salcysts junctivitis ard with dogs aymdia (Wet Bottom) and on ground salcysts junctivitis ard with dogs aymdia (Wet Bottom) and oned joey – fell from tree – maggot infested amydia (wet Bottom) ang low in tree – lost weight or Vehicle Accident – slight concussion

## PORT MACQUARIE:

DEC.	Permanent 3	Treated 36	Released 6	Euthanized 5	Dead/Died 5	Admitted 17
JAN	Permanent 3	Treated 41	Released 6	Euthanized 9	Dead/Died 1	Admitted 23
FEB	Permanent 2	Treated 46	Released 14	Euthanized 4	Dead/Died 1	Admitted 19

A BIG THANK YOU to 'Dorvik the Steel Centre' of Port Macquarie who have kindly assisted the Hospital with manufacturing costs and time for production of 30 Gunyah tree limb supports.

DISCLAIMER ABN 74060854479

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