GUM TIPS
September 2019

Pixie
A LITTLE FIGHTER

How to
PROTECT KOALA HABITAT

Find out more
PEOPLE POWER
In May 2019 a female koala called Ocean Drive Thomasina was hit by a car just south of Port Macquarie in what is considered a major “hot spot” for vehicle strikes. This notorious stretch of road has claimed the lives of many koalas and is still, to this day, an area we are struggling to control.

Joeys are notoriously difficult to hand raise

Thomasina was assessed and found to have suffered a severe brain injury. During the examination a very small joey was located who only had a small amount of fuzzy fur suggesting the joey was very immature. Staff decided the best option was to remove the joey from the pouch and place her in care with one of our “star” home carers as Thomasina had a big battle ahead of her. In these situations koalas (along with most species) often stop lactating as it’s simply too much for them to deal with.

The little immature joey was not injured and weighed in at 195 grams. Staff called her Pixie as she was so tiny. Koala joeys are notoriously difficult to hand raise at the best of times. Very small joeys are almost impossible, as the mother koala feeds antibodies via her milk throughout the entire lactation period. Joeys being hand raised miss out on this vital antibody protection and as a result their immune systems are compromised and they become very susceptible to infection with most dying before they reach 1 kg.

Thankfully Ocean Drive Pixie was in excellent condition and was a bright, healthy, robust little joey and appeared to have a lot of fight for survival in her.

Pixie was not impressed at first with this foreign milk formula and continually refused to eat it. In the early stages of being in human care koala joeys require round the clock feeding – that is every two hours even right through the night. The hospital often jokes that the main requirement to be a joey carer is to be an insomniac as becoming sleep deprived is simply part of the job. It’s really no different to a newborn human infant.

Our joey home carers are a stubborn lot and eventually Pixie decided this milk formula was good enough to drink. The hospital only allows one carer per joey and joeys are not swapped between humans as this is distressful to the joey who considers the human carer “mother”. It’s all about offering the joey a calm, secure, quiet and warm environment.

We have been very guarded with talking about Pixie’s progress as we know how easily immature joeys can die. Pixie has amazed us as she has gained weight every week, she began to grow proper fur instead of the “fuzz” and has gulped her formula down. Pixie has remained bright, strong and lively the whole time.

Between 250 and 280 grams in weight Pixie began to exhibit the behaviour that indicates she wanted “pap”.

... Continued page 6
My first few weeks as President have been filled with experiences which I feel augurs well for the future of our organization.

I was honored to represent the Koala Hospital at the Port Macquarie Chamber of Commerce Business Awards in late July. The hospital entered two awards and won both, the ‘Tourist Attractions’ and ‘Excellence in Sustainability’ awards. The third award, unexpected and probably the most satisfying, was the People’s Choice award where members of the Port Macquarie Hastings region vote for a business they hold in high regard. I feel this award is a resounding endorsement that the Koala Hospital is valued and appreciated by the community.

National Tree Day also fell at the end of July and we organized a tree planting at our 263 acre, koala food tree plantation at Maria River Road, North Port Macquarie. We had 35 people register on a beautiful, winter’s day and plant over 120 Tallowwood and replant 100 Swamp Mahogany, both koala food trees. The plantation was purchased following a bequest from a German visitor in late 2014. Since then, hard working volunteers have planted and cared for almost 5,000 trees. Our goal with the plantation is to supply koala food to the Koala Hospital and zoos and wildlife carers in the region.

We are about to start trialling a new tour at the Koala Hospital. Our Education and Guide volunteers are investigating a ‘just in time’ morning tour for people who find themselves in Port Macquarie with enough time to make a visit to the hospital. This paid tour will be trialled during the school holidays and, if successful, will be introduced at other busy times during the year. More information about this tour and other programs can be found on our website www.koalahospital.com.au

I’d like to acknowledge the former President, Jane Duxbury, who has resigned from Koala Conservation Australia’s Management Committee. Jane has been on the committee for around eight years, first as Treasurer and then as President. During this time she introduced a number of positive changes to the organization. While she has resigned from the committee, she will continue to work at the Koala Hospital as a volunteer. I thank Jane for her contributions to Koala Conservation Australia and the Koala Hospital.

Next time you are in Port Macquarie I invite you to visit the Koala Hospital. As well as a free guided tour at 3pm each day, we have laminated cards which enable self-guided walking tours. They have general information about koalas and the individual story of each of our resident koalas on permanent exhibition.
Sadly over the last few months there has been a spike in admissions of koalas hit by cars with most of these occurring at one of the major “hot spots” for car hits on Ocean Drive, heading south from Port Macquarie. This hot spot is adjacent to where the engine room (or hub) of core breeding of koalas occurs and has been a major battle for the Koala Hospital for many years. As breeding season is now full on, koalas are on the move and this is why this is occurring. Hopefully with the upgrade of Ocean Drive planned for the near future, exclusion fencing preventing koalas from getting onto the road will come into effect. Port Macquarie Hastings Council will also erect a large LED sign to alert drivers to slow down.

Where is the rain for NSW as the state continues to be in the worst drought on record? The drier it becomes, the more the eucalypts become dry and the less moisture is available to keep koalas and other arboreal mammals alive that rely on eucalypts for their survival. As the farmers say - “it’s a day closer to rain”.  

On a more positive note, there are many new research projects being put together for the remainder of 2019 and 2020 which is very encouraging.

The sixth edition of the Koala Rehabilitation Manual is finally now available for sale. It is full of information on everything from social structure, behaviour, capture and handling through to diseases, burns, joeys and treatment options. This manual has been sold throughout Australia to veterinarians, researchers, zookeepers and wildlife carers.

The Koala Hospital is now moving forward into a new era where we are reaching further afield in our work right across the country, hence why we have changed our name to Koala Conservation Australia. A bold name for bold plans and we are very encouraged with the support we are receiving with this move.
On a warm, sunny Sunday at the end of July, 35 volunteers from the Koala Hospital and Charles Sturt University gathered at the Koala Hospital’s Maria River Road plantation to plant koala food trees.

The day started with a briefing on what needed to be done, a planting demonstration and was quickly followed with the collection of tools and a walk to the digging area. The first task was to dig up trees and transplant them to a new location. About 100 Swamp Mahogany were lifted and moved to an area better suited for growing.

The tree planters followed guidelines provided by the Forestry Corporation NSW. They turned over the soil, loosened soil deep into the ground and removed weeds and other waste left in the planting area after the soil had been prepared for planting by tractor ‘ripping’.

To show its thanks to the volunteers, the Koala Hospital put on a simple BBQ with sausages, veggie patties, fruit and slice.

Lunch was followed by a nature walk to Limeburners Creek to inspect the Blackbutt Forest and enjoy a view of the creek and mangroves.

It was then back to work for a few hours and the planting of 120 Tallowwood trees.

Our thanks to the band of workers who dug, lifted, planted, watered and generally helped out to continue the development of the plantation.
PXIE SURVIVES DESPITE THE ODDS.... continued

SO WHAT IS PAP?

For koalas to be able to eat eucalypt leaf, they have to have within their intestinal tract millions of bacteria whose main job is to break down the eucalypt leaf and make it digestible for the nutrients to be used by the koala. Without these essential bacteria called microbiomes, the koala would die (see article June 2019 Gum Tips). This essential bacterial, that are made up of different groups of bacteria, are found in all species of animal, birds and reptiles (yes including humans!). We are all basically just big bags of bacteria!

Very immature joeys called “pre pap” joeys are pretty well devoid of these essential groups of bacteria and their gut has to be inoculated to enable them to progress to food. How is this done? The joey has to eat a specialised form of maternal faeces and this we call “pap”.

When the joey is ready to eat pap, it comes out of the pouch becoming active biting at the mother and begins to stimulate the mother’s cloaca to start producing pap. This special faeces comes from up in the caecum of the adult koala which is the main fermentation chamber of the koala. The joey ravenously begins to eat this “poo”, with the process being repeated often over a number of weeks.

“Pre pap” joeys are pretty well devoid of essential groups of bacteria

In Pixie’s case, she began to bite at the chin and face of her foster human and was wriggling all over the place! So we had to find pap in a hurry.

So how do we supply pap? We have two methods – via freshly dropped koala scats that are ground down and mixed with the formula and fed to the koala or via “liquid gold”- fresh caecum contents from another female who is “papping” at the same time. Or another

Feeding Pixie 2019.

Poo brew.
“liquid gold” method is to harvest caecum contents from the gut of an adult male or female koala that has just died. Sadly the donated pap must come from a koala who does not have a disease such as chlamydia and was originally healthy such as a koala hit by a car.

The hospital had a very old female koala who had died from age related causes, so she became the donor animal. Pixie was then offered this green, gooey, toothpaste consistency meal which she gobbled down. After a week of being fed the “green goo”, Pixie had had enough and began to show interest in nibbling on eucalypt leaf. A week or two later her behaviour indicated she needed more so we had to resort to freshly dropped scats from a healthy permanent resident at the hospital and Pixie devoured these meals over another 10 day period.

If she makes it, her genetics will be superb

At the time of writing this story Pixie is still gaining weight and sits in at an enormous 584 grams! Pixie is nibbling on leaf and achieving all the milestones a young neonate should be doing.

It is still very early days, and the hospital is very hesitant to say Pixie will do well, but, fingers are crossed for this very plucky little joey.

If she makes it, her genetics will be superb for future breeding prospects.

Her progress will be reported in the next issue of Gum Tips or you can find updates on the hospital’s Facebook and Instagram posts. Fingers crossed everyone!
MECHANISMS FOR PROTECTING QUALITY KOALA HABITAT
by Rebecca Montague-Drake

We often say here at the Koala Recovery Partnership…. “Good Habitat: There’s nothing quite like it”. While programs that seek to educate the public, reduce road strike, control disease and stop dog attacks on koalas are all important, the most important thing for koalas is the provision of large areas of quality habitat.

Good Habitat: There’s nothing quite like it

As a result, a major focus for the Koala Recovery Partnership is working to protect areas of known high-quality koala habitat in the Hastings-Macleay Region. We are working with multiple stakeholders to achieve this. Some of these initiatives include:

Promotion of Quality Areas to National Parks and Wildlife Service
As part of the NSW Koala Strategy, the NSW Government has provided $20 million for the acquisition of land with high quality koala habitat to add to the National Parks and Wildlife Service reserve system. The Koala Recovery Partnership are advocating directly with the NPWS Acquisitions Team for key properties within our region.

Promotion of Quality Areas to the Biodiversity Conservation Trust
The Biodiversity Conservation Trust (BCT) is part of the NSW Government. The BCT uses a variety of mechanisms to protect biodiversity on private lands.

In the Hastings-Macleay region, a “Koala Conservation Tender” saw five private properties receive financial payments in perpetuity for the protection (on title), and management, of quality koala habitat. This protection cannot be extinguished.

The Koala Recovery Partnership are also bringing properties that support high-quality koala habitat, and are available on the open market, to the attention of the BCT Revolving Fund. This fund purchases properties, establishes property management plans that protect the biodiversity values in perpetuity, and on-sells them. This scheme benefits the sellers (they know the special values of their

Koala Release.
properties will be protected) and purchasers (they know they are buying land with special values, are given information and they can receive financial remuneration).

**A major focus for the KRP is to protect high-quality koala habitat**

**Educating Landholders: $$ For Wildlife Protection**

Many landholders are not aware that they can receive financial rewards for protecting biodiversity. Some of these options are voluntary, while others (at the owner’s request) can be legally-binding but offer financial benefits in perpetuity. This can be a bonus when trying to on-sell that property as it comes with its own income stream or can be attractive to generational farmers. The Koala Recovery Partnership will host BBQs at rural halls later in the year to inform landholders about these options. The Partnership will also run a grant scheme that will enable landholders to get a rapid wildlife survey undertaken to better understand their properties’ biological values.

**Working with Corporate Stakeholders**

The Koala Recovery Partnership is also interested in working with corporate stakeholders who may be interested in purchasing high-quality habitat for philanthropic reasons, carbon credits or biodiversity credit rewards.

**INTERESTING FACT:**

Because the koala shares its habitat with many other threatened species, protecting koala habitat also protects many other species. From a financial perspective, purchasing koala habitat can therefore return multiple “species credits” and thus better monetary returns. Coastal floodplain areas, where development pressures are highest, are also often prime koala habitat. By purchasing koala habitat on the coastal floodplain, your property will likely have a high proportion of those species credits required by development and thus good market interest and value.

To find out more contact: Rebecca Montague-Drake, Koala Ecologist, Koala Recovery Partnership, rebecca.montague-drake@mncjo.nsw.gov.au
It’s said, ‘Winners are Grinners’ and that was certainly true at the Port Macquarie Chamber of Commerce Business Awards for 2019.

Koala Conservation Australia (KCA) entered two categories, ‘Tourism and Attractions’ and ‘Excellence in Sustainability’. Despite strong competition, it won both awards.

The Excellence in Sustainability award recognises businesses that are working to reduce the impact of their operations on the environment and/or provide products and services that have positive environmental outcomes. Koala Conservation Australia’s two koala food tree plantations, one at Maria River Road on Port Macquarie’s north shore and the other west of Wauchope, and the work it is doing on tree nutrition, planting and plantation management with students from Charles Sturt University formed a major part of the submission.

The KCA’s third award, the most humbling and unexpected, was the People’s Choice award which is awarded to a business the community holds in high regard.

Veteran volunteer, Anne Walsh, accepted the award and said, “I’ve been volunteering at the Koala Hospital for many years and feel so proud of what we have achieved. Thank you for the People’s Choice Award.”

The Port Macquarie Chamber of Commerce launched the first Business Awards in 2007, as a way of acknowledging the growth and success of businesses in the Greater Port Macquarie region. Each year local business and industry organisations are encouraged to nominate and enter across a range of categories and share their success stories, their achievements, their innovations and the people who support them. The Awards offer a chance to showcase a business and its brand.

The annual Awards Gala Dinner attracted almost 600 guests from government, business and the community.

In accepting the awards, on behalf of Koala Conservation Australia, President, Sue Ashton said, “Thank you to our volunteers and staff who work so hard and have made the Koala Hospital the success it is today.”
Two of the Koala Hospital’s volunteers, Becky and Graham Harrington, recently took the initiative to contact the Port Macquarie Hastings Council (PMHC) Mayor, Peta Pinson, and raise their concerns about koalas being struck by motor vehicles in the same area over and over again.

As experienced koala rescuers, Becky and Graham, are frequently the first people on site when a koala has been hit by a motor vehicle. Too often the koala has suffered horrendous injuries such as broken bones, a broken jaw and/or brain injuries. Often the koala is lying in pain. And, frequently, koalas hit by motor vehicles are euthanized.

In June this year four koalas were hit near the Port Macquarie Golf Club on Ocean Drive and in July, four more were hit in the same area.

Following their meeting with the Mayor, Council staff have investigated options to assist in reducing motor vehicle strikes in this area of Ocean Drive.

Melissa Watkins, Director Development and Environment, PMHC said, “There are a number of challenges for Council in this location due to the road speed environment, electricity source and adjoining land ownership. However, I am glad to let you know that as of Friday, 26th July, a temporary Koala VMS sign has been installed on Ocean Drive. It is visual for northbound traffic entering Port Macquarie and located based on the latest strike data. The location has been selected to alert motorists with the change in speed limits as they approach the better lit urban area”.

This sign will remain in place whilst PMHC sources new solar flashing signs and research some fencing for this area.

Well done Becky and Graham for raising your concerns with PMHC and persevering until you reached a result which hopefully, will reduce the number of koalas being hit in this koala black spot to nil.

KOALA SMART

Students from the Hastings Secondary College – Westport Campus explained their Koala Smart entry, “With our Visual Arts teacher, Jess Wilkinson, students from Years 8 and 9 are creating a three-panel (triptych) painting depicting the change in koala habitat over many generations, affects of urbanisation and a possible solution. The work will be accompanied by an artist’s statement that explains the three panels.”
Who doesn’t get excited when they hear the words “Look, there’s a koala!” We rush to look up and start scanning the tree tops. “Yep, there he is...on that branch. Awww, so cute, he’s fast asleep.”

Our delight and fascination with the unique Australian koala never wanes! For many, koala sightings will occur in a zoo or a wildlife park. And, for our overseas readers, that’s the only place where they will see a ‘fair dinkum’ Aussie koala.

Wild koalas live fairly solitary lives

Fortunately there are others who experience the delight of sighting a koala living in the wild. Wild koalas live fairly solitary lives across forest, rural and coastal ranges, including towns and cities throughout Australia’s southern and eastern states (koala populations are recorded in South Australia, Victoria, New South Wales and Queensland). Spotting a koala in the forest without the help of either koala detection dogs or, if the koala is tagged, a radio tracking device, is hard work but finding our urban koalas is a little easier.

Their superb camouflage and quiet lifestyle high in the trees mean that many of us rarely catch sight of a koala, but if you want to know how to spot these beautiful animals, here are some great clues to help you:

Look out for:

• Scats – koala poo found at the base of food tree
• Claw marks or scratches on tree bark
• Food trees – learn what a couple of favourite, local koala eucalypts look like, such as Tallowwood and Swamp Mahogany
• Bellowing during the mating season August to January (especially at night)

The Port Macquarie Koala Hospital receives regular sighting information and photographs from local residents. Many of the reported sightings come from people who have learnt what it takes to find a koala. Two koala spotting enthusiasts from Port Macquarie related stories about their sightings to us.

Charlie Busby is one of the town’s most prolific koala spotters and since his arrival 21 years ago, has provided countless sightings to the local Koala Hospital. When asked about his interest in koalas, his reply says it all “well, they’re just so special, aren’t they?”

While Charlie had never seen a koala prior to moving to the town, that all changed when he had his first encounter with a koala that regularly visited a tree opposite his home.

During his walks around the town, Charlie always keeps his eye out for a koala. This is how he finds them. He looks at the tree tops, scanning
the tree canopy until he sees a lump. A termite mound on a tree can look deceptively like a koala at times. Smaller trees make it easier to see the koala but the tall Forest Red Gum is at the other end of the sighting scale!

Charlie also looks down around the base of trees to locate koala scat then, if it is fresh, he looks up with the expectation that he will see a koala. Usually he does.

His best ever sighting was in Kooloonbung Creek Reserve, where he saw five koalas in one day near each other, including a mother and joey in a seven metre high tree with a four centimetre diameter trunk.

Charlie has spotted koalas in different types of trees, such as frangipani, casuarinas, palms, paperbark, and liquid amber. An avid photographer, Charlie has constructed what he terms his ‘koala cam’, a Go-Pro mounted on a long pole - used to photograph koalas from a closer perspective.

Of late, Charlie is happy to say he has only spotted what he believes to be healthy koalas. If possible, he always looks at their bottoms for discoloration or wetness and also for any eye issues, such as mucus or redness.

A big ‘thank you’ to Charlie for his efforts in caring for our local koala population.

The other Port Macquarie koala spotter, Bron Hughes, has a slightly different story regarding her koala spotting and it involves her dogs!

When Bron arrived in Port in 2013, she was quite surprised to learn that koalas were living in an urban landscape and when she heard a male bellowing for the first time, she was ‘blown away’ by the unexpected vocals. Bron says about koalas, “Being such an iconic animal, just to be able to live amongst them I feel quite lucky because people come from all over the world to see a koala and we just have to walk down the road and see one up a tree!”

Bron is happy to say that most of the time it is her two dogs that help her find koalas. With their keen sense of smell, her dogs lead her to the base of a tree where a koala is currently sitting. The dogs are always kept on leashes, as she is well aware of the damage an unleashed dog can do to a koala. At times, she has even come across a koala on the ground and was glad that her adherence to ‘on leash’ dog walking saved that koala from a dog attack.

Bron also likes to submit sightings photos and makes sure to add the geotag location, and suggests that other ‘spotters’ do the same.

So whether you are looking up or looking down to spot that elusive koala, always ‘look out’ for them and take note of signage that helps you to keep them safe in their urban environment.

Note: If you are visiting or local to Port Macquarie and happen to see a koala, please inform the Koala Hospital by calling our 24 hour hotline 6584 1522 or email sightings@koalahospital.org.au. We love getting photos too, so feel free to email your snaps!
Volunteering at Koala Conservation Australia (KCA) can take many directions. Two hard working volunteers, Shana and Brian Webster, talk about some of their roles and what they like most about their work.

Shana joined the Koala Hospital in late 2017 and since that time has immersed herself in life at the hospital by volunteering in many different areas.

The Kiosk, or shop, is frequently the first place visitors go to when they arrive at the Koala Hospital. Shana said she enjoyed working in the shop, “Greeting our visitors from near and far, informing them of what we do at the hospital and how we endeavor to achieve our goals.”

She currently works in the hospital yards two mornings per week where she feeds koalas, cuts and replenishes fresh leaf brought in daily by the leaf collectors and collects scat (koala poo). The scat is recycled by the maintenance team to produce superior mulch for use at the KCA’s plantation. Shana says, “I find yard work enjoyable and rewarding.”

Shana also collects retail donation boxes which are located in businesses in and around the greater Port Macquarie region. Her run, which she does every six weeks, consists of collecting cash from boxes at 27 locations covering areas south of Port Macquarie, from Lake Cathie through to Kendall.

As a qualified rescuer, Shana also captures and retrieves injured koalas and takes them to the Koala Hospital. The hospital operates a 24x7 rescue service which means being on call to conduct a rescue when needed.

While Brian doesn’t work at the hospital, he’s been volunteering at the KCA’s Maria River Road plantation since the beginning of this year.

Both Shana and Brian enjoy the tranquility and peace at the plantation. As Brian said, “It’s a pleasant way to start work, a ferry ride followed by a drive through coastal rainforest to be greeted by kangaroos and a variety of bird life.”

The plantation is still developing and people who volunteer there are learning new skills like planting techniques, identifying different eucalypt species and plantation management.

A typical day at the plantation includes planting, watering, mowing, weeding and mulching.

Away from the Koala Hospital and the plantation, Shana and Brian spend time with their dogs, a brother and sister they’ve had since they were pups. Shana says, “One or both of us walk them daily and spoil them. The enjoyment and love we get from them is very rewarding.”

Brian also finds time for his passion, fishing. He said, “I enjoy competing for my fishing club, Lake Cathie, in Mid North Coast fishing competitions. Our club also has a monthly club competition. Recently I have joined the club committee and will become more involved in the organising of the club’s activities.”

Thanks Shana and Brian for sharing ‘what you get up to’ as volunteers.
KOALA Kids

KOALA WORD SEARCH

BELLOW  HABITAT
CLAWS    JOEY
CLIMB    KOALA
EUCALYPTUS MARSUPIAL
FOREST  POUCH
GUMLEAVES

HELP JOEY FIND THE FOOD!

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Editor: Becky Harrington
Contributors: Cheyne Flanagan, Sue Ashton, Scott Castle, Rebecca Montague-Drake, Julie Pleace, Charlie Busby, Bron Hughes
Photography (unless individually credited): Becky Harrington, Barbara Barrett

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DID YOU KNOW?
* Koalas eat approximately 500g of leaves each day.
* Koalas are marsupials. Their closest relative is the wombat.
* Koala fossils have been found showing that they have remained unchanged for 20 million years.
* It is illegal to keep koalas as pets.
Their future is in our hands

ADOPT A WILD KOALA

And help the Koala Hospital care for sick and injured koalas

Emerald Downs Mary
Mary has lost both eyes because of advanced glaucoma and high ocular pressure which was probably causing considerable pain. She is a very gentle koala, and copes well with life in captivity.

Barrington Xavier
Xavier was found to be suffering from eye disease, chlamydial infection. His eyes are so bad that he is unable to see. He is an easy-going koala, in constant care at the Koala Hospital.

• Read their amazing stories of survival • Help save an iconic Australian species

Visit www.koalahospital.org.au/adopt-a-koala to adopt a koala now, or telephone (02) 6584 1522.

You can also email us at adoption@koalahospital.org.au

Koala Adoptions make great gifts for someone special in your life!

The Koala Hospital receives no government funding and relies on public support through adoptions, donations and bequests to continue its vital work.