





# President's Report



By Karen Scott

Welcome to the 2019.

I am positive that I'm not the only person who is having trouble figuring out where 2018 disappeared! I hope that all of our wildlife volunteers managed to get a little bit of down time over the Christmas and New Year period, although I know many were full to capacity with wildlife needing care. This past Spring and Summer has been a tremendously busy one for most of our carers, with more and more wildlife suffering injury, orphaning and displacement as a result of human activities.

I am extremely grateful that we have such an amazing team within Wildcare who all pull together to ensure that our wildlife receive the care that they deserve and need. It does indeed take a team of dedicated people; from those volunteers manning the Wildcare Hotline, to the wildlife rescuers, to the volunteers who provide support by transporting animals between vets, carers and wildlife hospitals, to the dedicated veterinary staff and volunteers at the wildlife hospitals and all the way through to our volunteers who share their own homes with our wonderfully unique wildlife.

It has been very heartening to receive recognition and assistance from local businesses that have provided financial assistance to help our wildlife volunteers. On behalf of all of our volunteers who benefit from this help, I cannot thank you enough. For some of our volunteers I know that these donated funds

help to ensure that they can continue to do what they love.

Here's hoping that 2019 is a better year for our wildlife and our volunteers. Please be kind to each other and to yourself this year.

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#### OUR MISSION

To protect and enhance the environment by providing a high standard of rescue, care and rehabilitation for sick, injured, orphaned and displaced native fauna with the goal of successful release into the natural environment.

#### **EMAILS**

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#### MAIN COMMITTEE

President Karen Scott Vice-President Lewis McKillop Treasurer Tracy Paroz Secretary Heidi Cuschieri Committee Members Gayle Morris and Judy Swanton

## NEWSLETTER TEAM

Eleanor Hanger & Deborah Bianchetto. Submissions can be sent to news@wildcare.org.au

Cover photo: Emmanuel Higgins @ Unsplash

## A Warm Welcome to our New Members

## Wildcare Australia welcomed the following new members:

Kate Warren; Gemma Edgeworth; Luke Maher; Megan Ponder; David Mifsud; Anne Marshall; Juliette Monetti; Kathleen Hessling; Leone Toll; Lisa Wells; Isabella Wells; Blaze Wells; Ruby-Rose Wells; Tara Hunter; Maree Neville; Phil Neville; Daniel Neville; Kate Neville; Eduard Paul den Besten; Skot Biner; Reisuke Shimomura; Grace Enright Burns; Melissa Curleybrake; Peter Collins; Mina Yagami; Katrina Gilligan; Craig Fryer; Hadas Porot; Melanie Pope; Anneke Menrath; Andrew McDonald; Blake Menrath-Bonham; Lochlin Menrath-Bonham; Kalan McDonald; Eden McDonald; Lizy Buckby; Karen Devers; Stacy Crawford; Denise Manfrin Benedicto; Siobhan Purkis; Myles McKinnon; Mikaela Weir; Emma Nial; Hayden DeFazio; Kirsten Gray; Cathy Steenbeek; Wim Steenbeek; Natalie Weik; Paul Weik; Madison Weik; Chailee Weik; Jessie Weik; Sara Jones; Shelley Ward; Robert Brown; Lyn Farrow; Bev Trevithick; Tanya Carter; Nobuko Kidoguchi; Aika Kodoguchi; Hiroya Kodoguchi; Hanae Kodoguchi; Robyn Martin; Sonia Smith; Monique Hudson; Ian Peak; Callum Peak; Kieran Peak; Simon Peak; Lauren Hardiman; Kimberley Shirlock; Kathryn Nicholls; Carol Real; Hsiang-Er Lee; Yi-Hsaing Kao; Diane Molloy; Samantha Kingston; Celia Hutikka; Shannon Ward; Richelle Martens; Monica Culey; Jillian Apps; Brittany Brandenburg Johnson; Patricia Rosenstein; Brett Adamson; Tyge Kummer; Neda Todorova; Bliss Hodgson; Dianne Coulthard; Steven Franklin; Amanda French; Bianca Puller; Beck Johnson; Georgia Edson; Ruth Huckstepp; Lauren Keller; Barbara Peachey; Peter Peachey; Joann Halinen; Peter Tunstall; Nigel Slater; Bernard Jean; Megan Johnston; Pamela Larkin; Simone Powell; Callum Griffiths; Sarah Fraser O'Brien; Darren O'Brien; Piper O'Brien; Iris Mulvenney; Janette Buddee; Paul Barnes; Michael Tervo; Zoe Knight; Airi Kanazawa; Kristel Blake; Nicholas Townsend; Duyen (Tanica) Dang; Candice Bourke; Lorna Hudson; Leisa Pearson; Margaret Snowden; Tina Storm; Tara Storm Furness; Andrea Hudson; Candice Stone; Isaac Wishart; Michele Smith; Muriel Sellars; Sandra Rose; Georgia Vincent; Romney Francis; Jacqueline Arrow; James Jackson; Tracey Boyter; Brianna Hehir; Katryn Kerslake; Melina Mura; Greg Dubler; Catherine Kay; Michelle Baker; Lauren Flohr; Shea Dawson; Nicole Millar; Ebony Cheshire; Jayita Belcourt; Megan O'Callaghan; Michelle Bercolli; Meerah ALMarzooqi; Brenda Philippe; Chrissy Gillies; Belinda Cullen; Cohen Alexander Voigt; Samantha McPherson; Kieley Swan; Calley Finnegan; Jessie Abbot; Wendy Forshaw; David Samson; Theirry Motmans; Britany Jeremy; Leanne Cockram; Su Johnson; Sally Fitzsimmons; Emma Fitzsimmons; Natasha Lewis-Millar; Chlorise Lewis-Millar; Ailysh Lewis-Millar; Taylor Lewis-Millar; Penny MacGregor; Eddy Woon; Jade Gilchrist; Jennifer Armstrong; Ian Wright; Jason Wright; Ivy Winter Wright; Makenzie Rosina Wright; Gail Neilson; Manfred Vogt; Marion Winter; Jessica Wieland; Michelle Moller; Silvana Nagl; Bill Nagl; Nick Nagl; Emma Nagl; Laura Burstow; Natasha Kendall; Christina Botfield; Michelle Giefer; Jessica Robinson; Gemma Hoppe; Wei-Yung Hsu; Shannon Mathes; Lize Bloomfield; Daryl Baumgartner; Rachel Slater; Shani Berriman; Debra Moore; Peter Arnerich; Sienna Edwards; Darcy Edwards; Renee Hayes; Petra Cox; David Cox; Kianna Cox; Skylar Cox; Zara Cox; Vicky Choudhry; Lauren Meyers-Young; Bridgette Martin; William Martin; Cody Mark Martin; Tayla Ann martin; Trudy Meischke; Vicky Kelly; Anne Gorissen; Veronica Westerweller; Tracy Foster; Steven Foster; Chelsea Foster; Elise Foster; Sian Truasheim; Jason Brabant; Patrick Brabant; Jayleigh Kemp; Tracy Gillard; Jamie Balloch; Margaret Koimans; Michael Kruck; Sally Dunn; Beau Eastman; Tahlia Wakefield; Michelle Rautenbach; Chelsea Herbert; Tracey Herbert; Stephanie Fergusson; Maurice Goubaud; Christian Estuardo Goubaud; Fabiola Goubaud; Joshua Andrews Goubaud; Nadia Patane; Rachael Bailey; Gillian Egan; Crystal Davies; Bronwyn Hibbard; Emily Wilson; Marie Klien; Caroline Reid; Lucy Francis; Margaret Arnold; Michelle Brown; Kellie Hinchy.

By joining Wildcare Australia you are demonstrating your commitment to the welfare of Australia's native animals. Please don't hesitate to get involved in this, your organization. If you are unsure of where your personal niche may be, contact us and I'm sure we will be able to help you. We hope you have a long and happy association with Wildcare Australia.

Thank you to all those members who have renewed their Wildcare membership subscription for another year. Your ongoing support is much appreciated.

#### NEXT ISSUES SUBMISSIONS DATES

Issue 85 : 15th April Issue 86 : 15th August

The views expressed in this newsletter are not necessarily those of Wildcare Australia or of the editors.





## Education Report

By Karen Scott

NEWS & ACTIVITIES

Welcome to another year of training with Wildcare.

Our January to June 2019 Education Calendar was published in December 2018 and already has several workshops booked to capacity. We are offering another 21 quality training workshops this calendar suitable for wildlife volunteers with varying degrees of experience. We are offering advanced workshops in wildlife first aid, bird rehabilitation and the care of orphaned mammals.

Remember, please, to book in for workshops as soon as possible to secure your place. Also a reminder, that if you are no longer able to attend a workshop, please let our Education Team know as soon as possible. Sadly, during the last calendar we had several workshops where members on the waiting list missed out on attending, simply because registered members didn't attend and didn't send in an apology. This is really disappointing not only for our volunteer trainers but also for those members who were keen to attend.

Please remember to check that you have completed your training requirements for the 2018-2019 year before permit endorsement renewals are due in May/June this year. We encourage you to check if you need to update any of your training for the year to ensure that your renewal is processed.

Thank you again to all of our volunteer trainers and everyone behind the scenes who keep our education program going.

## Monthly Wildcare Recognition Award

By Karen Scott

Last year the Wildcare Committee introduced a monthly recognition award to honour those members who have gone above and beyond to help our wildlife. Since its inception, the following awards have been made:

**September 2018** – Nicky Burt in recognition of the many trips that she has made to transport sick and injured wildlife between wildlife hospitals and carers.

October 2018 - Tara Hunter for her dedication and hard work in helping to improve Wildcare's media exposure.

**November 2018** – Ashley Fraser in recognition of her dedication and compassion in the rescue of critically injured wildlife.

**December 2018** – Meng Chia in recognition of her dedication in the rescue and transportation of sick and injured wildlife.

If you would like to nominate a fellow volunteer for a monthly Award, please feel free to send through nominations to the Wildcare Secretary via email at <a href="mailto:secretary@wildcare.org.au">secretary@wildcare.org.au</a>

Thank You

By Karen Scott

# We wouldn't be able to do what we do in Wildcare without the tremendous support of the community and local businesses.

We have been very fortunate over recent months to have received support from a number of local businesses including:-

#### **Costanzo Racing**

Charlie and the team at CCR raised over \$440.00 at their 125's event at Willowbank Raceway in December.

#### **Ardent Private Wealth**

The staff at Ardent nominated Wildcare as part of their annual Christmas Charity fundraising activities and donated \$1,500. These funds are being used to assist with fuel cost for busy rescuers.

## **Gwinganna Lifestyle Retreat**

The wonderful staff at Gwinganna continue to support our wildlife carers by providing a monthly donation. These funds go directly towards purchasing food and supplements which are distributed to our wildlife carers. This continues to be a tremendous help to all of our active, permitted carers, many of whom would struggle to meet the financial costs involved with wildlife rehabilitation if it wasn't for those supplies.

## Grill'd Robina and Grill'd Pacific Fair

Thank you to the teams at both Grill'd Robina and Grill'd Pacific Fair for including Wildcare in their monthly Local Matters campaign. Wildcare received a \$300 donation from each franchise which just goes to show how much the community values the work of our volunteers. Thank you to everyone who voted for Wildcare.

#### **Albert Valley Wilderness Society**

Thanks for the wonderful efforts of the team at the Albert Valley Wilderness Society. At their recent nest box day event, they were able to make a donation to \$352 to Wildcare. Many thanks to Shevaun and team for your continued support.

#### **Radio Metro**

Thank you to Justin Smart, Director of Radio Metro, for the most welcome publicity given to Wildcare Australia. By making the public aware of our organization and the work we do, it ensures that the native animals needing help receive attention in a timely manner, and it may also encourage people to become part of our team.

#### **Annabel Trends at Burleigh Heads**

Thank you to Sally Dunn CEO of Annabel Trends at Burleigh Heads for donating baskets for nests for baby birds. These are greatly appreciated by our bird carers. Sally also gives Wildcare members a discount on smaller rescue heat packs. Thank you, Sally.

#### **Containers for Change**

Wildcare has now registered with the Containers for Change scheme which enables the community to donate their refunds from recycled products directly to Wildcare.

#### Wildcare's Scheme ID is C10053251.

The Containers for Change scheme is a great way to help the environment and your local wildlife at the same time. Why not organize a collection drive with your friends, family and work colleagues? All funds raised through the Scheme will go towards helping our wildlife volunteers care for the thousands of sick, injured and orphaned wildlife that they encounter each year.





Tara Hunter receiving baby bird nesting baskets from Sally Dunn (Annabel Trends, Burleigh Heads)





## Vale Blake Rasmussen

By Karen Scott

We were deeply saddened to learn of Blake's sudden passing in early December. Blake has been a member of the Wildcare community for more than twelve years assisting his beautiful wife Natalie and their children Jasmine, Lilly and Jack. Blake always encouraged and supported Nat and the children in following their passion for rescuing, caring and protecting our local wildlife and the environment.

Blake's sudden passing as a result of a medical episode shocked not only the Rasmussen and Hoyland families, but everyone who knows and loves the Rasmussens.

Our heart-felt condolences go to Natalie, Jasmine, Lilly and Jack.



## Velvet Gecko Award 2018

By Karen Scott

GECKO very kindly invited Wildcare to attend the 22nd Annual Environmental Awards 2018.

Heidi and David Cuschieri accompanied me to the Award ceremony, where we were afforded an opportunity to chat with other like-minded people within the environmental sector. To our surprise, Wildcare was awarded the Velvet Gecko Award for the outstanding contribution and commitment that our volunteers display in caring for our wildlife.

It was such an honour to receive this coveted Award. The plaque now sits proudly on my desk where I am reminded every day of the remarkable team of volunteers who make up this organization that I am so proud to have been a part of for nearly 19 years. Not only do we have an amazing team of volunteers today, but much recognition goes to those before us who established Wildcare and paved the way for the group to be what it is today.



## Changing the World

## At just eighteen years of age, Jasmine Rasmussen has achieved more than most do in a lifetime.

How can one put into words the remarkable and inspirational young woman who at age five said to her Mum, 'right, we are going to go and help wildlife'! From her volunteer work in East Timor to koala rescues in the middle of the night with her Mum, Natalie, from her vet nursing studies and work at Currumbin Wildlife Hospital to campaigning for marine life with research organisation Humpbacks and Highrises, one can't help but think, surely she has more than the 24 hours in each day that the rest of us have. Not only did Jasmine undertake all of these endeavours, but did so whilst graduating from high school with an OP1 (the highest achievement possible) coupled with a scholarship to Griffith University.

I was chatting with Jasmine the other day, talking to her about her new vet nursing role. She was extremely excited and very humbled by the job offer. Her humility and embarrassment of the accolades just makes you love her even more.

We are beyond privileged to have a young woman of the highest integrity, compassion and kindness of spirit amongst us.

Jasmine, on behalf of your Wildcare family, we could not be more proud and in awe of your outstanding achievements. Your determination, tenacity and heart to make the planet a better place for all creatures great and small, is nothing short of inspiring. You're the kind of person who makes others want to be better people.

Using the words of Apple founder, Steve Jobs as he is a far better wordsmith than I:

Here's to the crazy ones, the misfits, the rebels, the troublemakers, the round pegs in the square holes... the ones who see things differently — they're not fond of rules... You can quote them, disagree with them, glorify or vilify them, but the only thing you can't do is ignore them because they change things... they push the human race forward, and while some may see them as the crazy ones, we see genius, because the ones who are crazy enough to think that they can change the world, are the ones who do.



Jasmine at aged 9 at Wildcare's Walk for Wildlife event.



By Heidi Cuschieri

Jasmine aged 17, winning the Empowering Young Women's Award at the 2018 Women in Business Awards, October 2018

## Coordinator Reports

## **REPTILES** By Lewis McKillop

As we reach the end of the summer, reptiles are busy trying to pile on the weight to see them through winter. This normally results in a bit of a rush of rescues and foster patients at this time of year, as they encounter netting, dogs, cats and cars as they hunt for food.

It's always a race against time to release reptiles at this time of year, as we generally don't release any in winter. Those that don't make it in time often have to be 'wintered' and kept in foster care until spring.

It was a busy spring and summer for the reptile carers, but thankfully we have more carers than ever.

I have recently finished the new manual 'Introduction to Caring for Snakes', and I thank everyone for their patience while this was completed. I have a new level of admiration for those who created all of our training manuals, as I vastly underestimated the time involved in getting the manual right. I'm grateful for the help I received, especially from Karen, who put a huge amount of time into editing the final version. I'd also like to thank those who contributed their photographs. In total we used photos from over 20 photographers.

## **POSSUMS** By Michael Wilson

The following is a very brief summary of the possum report given at last year's AGM. The report is the result of discussions with my colleagues about what has been happening in the possum world in the different regions over the past year. It shows trends, observations we have made, what we are learning and what we hope to learn. Please note some of the details are not pleasant, but it is important to know what is going on.

Of great concern is the number of animals with facial tumour cases coming into care on the Gold Coast, particularly from the Short-eared Possum population. Many of these cases are females with dependent young. There have also been a few cases of dermatitis.

The loss of habitat and expanding urban areas are leading to many more car victims as displaced and dispersing animals seek new territories. This is a trend seen throughout most regions.

Domestic animal attacks are also common. Cat attacks account for many ringtail possums coming into care and another problem for them is orphaning, caused by the inability of the young to find its mother or her abandonment of it.

Habitat loss and cat attack continue to be major problems for gliders and the glider populations in most regions (Gold Coast, Logan and Redlands) are increasingly suffering horrendous injuries or death from chainsaws. This is ocurring because there has been inadequate checking of vegetation before work starts. Barbed wire entanglement is a problem for gliders particularly in some of the areas north of Brisbane.

Some areas of Brisbane are seeing a reduction in the number of dermatitis cases and the Brisbane region and further north are seeing an overall reduction in the number

of Common Brushtails coming into care. Ringtails are still falling prey to cats, as are large numbers of feathertail gliders.

All regions are reporting positive outcomes with the use of Protexin® (a multi-strain probiotic). While we have no scientific evidence to support our observations, very few carers are reporting gastro-intestinal issues with orphans in care, and those (adults and orphans) who've had medications, don't appear to be plagued by cascading problems with often life threatening outcomes.

A good news item is the recent discovery of an Eastern Pygmy Possum at Springbrook. This is fantastic news indicating the existence of a population of these tiny possums that had been considered extinct in this region.

Education and information sharing are extremely important, both for us as carers, to ensure that we have a good understanding of the animals and can provide the best quality of care, and for the general public, to make them aware of the problems that our society is creating for these creatures, so that they can manage or at least minimize them.



Common Ringtail Possums, Lilly and Womble, having a nap after their bottles. Photo: Brioni-Dallon McDonald

## The Wandering Turtle

By Sally Purbrick-Illek

Several days ago the gardener from the vacant holiday house across the street from me rang the bell and said he heard I looked after native animals. He brought over a turtle which he found in the skimmer box of the swimming pool. Neither of us could figure out how the 25 cm long turtle got into the property as it is surrounded by concrete fencing (Do turtles dig?)

Fortunately Sherryn Fraser was in the area and took it to Currumbin Wildlife Hospital to be examined. According to Sherryn, the veterinarian said it was probably someone's pet, as its shell had not developed normally. This is commonly the result of bad husbandry. It was also a little too friendly and very overweight. Apparently many turtles, like this, are let go to fend for themselves after they get too big.

Hopefully this guy can be re-homed with someone who will look after it properly.





## Bottled Water:

## The Cost to the Environment and the Cost to the Consumer

By Eleanor Hanger

## It has come to my knowledge recently that an application for a water extraction licence for Springbrook has been lodged.

There are already a couple of businesses extracting water for bottling from the aquifers on Springbrook and it is of grave concern that another licence could be granted. Drawing large quantities of water from the aquifers which feed the waterfalls and creeks in these beautiful natural areas could lead to reduced water flows. Increasing temperatures in recent years and quite long periods of drought could result in the levels of the water tables falling, particularly as in some areas the recent annual rainfall totals are significantly lower than the average. Creeks, which historically have never stopped flowing, are now dry. Increasing water extraction could have a negative impact on the forests and other ecosystems in the national parks on Springbrook and at Natural Bridge and will seriously compromise their environmental values and their value as tourist destinations.

Why do people buy bottled water when it is freely available from the tap? Imagine the outcry if petrol prices climbed to \$3.00, \$5.00 or \$10.00 per litre. Yet some people are paying such prices for bottled water. In a Gold Coast service station 500mL bottles of water were on sale for \$5.00. Tap water on the Gold Coast is as good as any. There are excellent filters available for those in other areas, where perhaps the tap water is not so good, or they are using tank water and feel the need for added safety.

There are some places in the world where, for health reasons, one may be forced to drink bottled water, however now there are water bottles available with filters, to help overcome that problem. (Care should be taken to ensure that the filters are fit for purpose, which some of the cheaper models may not be).

In an article (The War on Plastic) by Ian Lowe, in Australasian Science, Sept/Oct 2018, page 47, it was stated that tests of bottled water revealed very little difference between it and tap water and one brand was so acidic it posed a similar risk of damage to tooth enamel as carbonated soft drinks.

This is an industry which is contributing to environmental damage on two fronts; removing water from our thirsty environment and indirectly leading to the pollution of terrestrial and marine environments with discarded plastic bottles. Note though, it is the public's desire for bottled water that is driving the industry, so the challenge is to change that driving force.

## A Very Original Solution

By Tara Hunter

Tara Hunter, a Wildcare bird carer, was contacted by a member of the public, Paul, and asked for some advice about ducks pooing around his pool. Tara spoke with Paul over a period of months and listened to updates about the many different and entertaining ways he had used to try to deter them. These included noodles in pool, other inflatables, flood lights, even cameras fitted and a screen inside the house, which alerted him to their presence and sent him running outside, day and night, waving arms in the air, screaming to scare them off, until at last it seemed he had found a solution.

Hats off to Paul, it did not involve the use of any nasty chemicals. He now has crocodiles strategically placed and held in position with bailing twine. Mission accomplished. The crocodiles were purchased from Kmart for \$8.

A massive thank you to Paul for his perseverance and slight insanity in solving the issue and not harming any wildlife.





Permission to use photos kindly granted by Paul





## Heat Stress in Wildlife

By Robyn Stenner (BVSc, MANZVCS- Wildlife

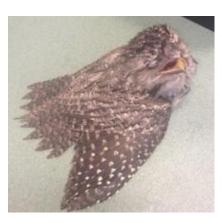
## Summer is always a good time to think about heat stress/heat stroke in our wildlife.

Unfortunately, with hotter summers, and longer/more frequent heat waves, this is an area we will likely see more issues with in the coming years. It is estimated that in the heat event of November last year, up to 1/3 (23,000) of the entire Spectacled Flying Fox population in northern Queensland was lost. Think about that. Two days of extreme heat, during the time when pups are still with their mother.... So many animals lost. Not only is this a devastating welfare situation for the individuals affected, but for the population as a whole the consequences are significant.

All animals are able to cope with fluctuations in temperature, to some degree. Our reptiles do this mostly by moving into and out of heat sources, as they have not "internal thermostat"- they are ectothermic. As a result of this, they are actually able to tolerate wider temperature fluctuations than mammals. However, even they have limits. Mammals and birds in contrast, have a part of their brain called the hypothalamus, which "sets" the body temperature. Things like panting, shivering, sweating, and piloerection are all attempts of the body to return the temperature back to "normal" for that species, if it is too high or too low. For most species, "normal" is within a one to two degree Celsius variation. (e.g. for koalas normal is 35.5-36.5 degrees Celcius). If the temperature deviates from this, the body works hard to return it to normal. If it fails, there can be devastating consequences for the body.

Heat stress occurs when the temperature of the environment is above the thermoneutral zone for that animal. In other words, the external environment temperature is so high that it becomes uncomfortable for the animal, and with prolonged exposure heat stroke can result. In this situation, animals will seek cooler areas (shade, breeze) and water, as well as display behavioural changes to help shed heat. Some examples include, sweating in many mammals, which is isolated to pads in most marsupials, licking forearms in macropods, holding wings out and open mouth breathing in birds, panting in mammals. Ultimately, if the heat persists and worsens, then heat stroke will occur. This can eventually lead to death.

Heat stroke will result in the animal (or person) feeling physically unwell, as opposed to heat stress where they are just uncomfortable. This is because once heat stroke occurs, there is actual



Heat Stress in a Tawny Frogmouth; Note open mouth breathing, and wings held outwards to increase heat loss along featherless tracts. Photo: Robyn Stenner

cellular damage occuring within the body. The more prolonged the exposure to heat is, the worse this gets and the more organ systems will be affected. Excess heat results in protein destruction, and subsequent cell death. This in turn results in changes to electrolyte levels in the blood, such as potassium and calcium, which can cause death if not at the correct levels.

The challenge in managing heat stroke animals, is that if the damage has progressed significantly then you may have an animal which seems to recover with appropriate management, only to die days or weeks later. This is generally as a result of damage to the gastrointestinal system, or the kidneys. There are SIX main organs where heat stroke can result in significant damage, and consequentially death. These are the Gastrointestinal system, kidneys, lungs, liver, blood vessels, and neurological tissue (brain).

In the gastrointestinal tract (GIT), damage is a significant problem. The death of cells lining the GIT will result in their loss, and exposure of the blood stream to the GIT bacteria. This is because once the layer of cells between the blood vessels and the lumen (space in the gut) are lost, the bacteria can easily move into the blood stream. These animals will often have bloody diarrhoea, dehydration, protein loss, and infection which can ultimately lead to sepsis (blood poisoning) and death. If they survive this phase, then we need to be aware that they are nutritionally compromised, as while the intestines heal, they will not absorb as much nutrition from their food in the short term.

When the kidneys are affected, we can see either acute death from kidney failure, or a slower longer term deterioration due to a slower onset of kidney failure/insufficiency. These animals generally are not as "critical" as those with GIT damage (no sepsis/systemic infection). However, they will have, or develop severe life threatening dehydration over time. Because the kidneys have an important role in keeping hydration at the right level, these are animals who will respond well while on intravenous (IV) fluids, but will be unable to maintain hydration and will gradually deteriorate once the supplemental fluids are removed. Their long term prognosis is unfortunately very poor. Once the kidney function is lost, it will not return.

Lung compromise results from a couple of different mechanisms. Firstly, if the heart muscle is damaged, we can see a "back up" of blood in the lungs, and this can result in fluid on the lungs. If there is fluid on the lungs, the animal can't oxygenate properly and will struggle to breathe. The same end result can be seen if there is low protein in the blood, or if the cellular lining of the lungs is damaged. In all these cases, fluid leaks out of the blood vessels and into the lung space, which stops oxygen getting into the blood stream. The animal eventually "drowns". Generally these animals will appear to be struggling to breathe, or show cyanosis, a blue tinge to their gums, due to a lack of oxygen. They need to be given diuretics to help move the fluid off the lungs in order for normal oxygenation to occur.



Severe dehydration in an Eastern Grey Kangaroo; Note Severe skin tenting due to inability to hold hydration, with failing kidneys.
Photo: Robyn Stenner

Liver damage progress is similar to kidney damage, in that a lot of the time the damage/poor prognosis can take time to manifest. Significant cell damage in the liver will result in liver failure, which means blood protein levels fall, the body can't produce factors essential to coagulation, and the immune system is compromised. All of these signs can take days to weeks to manifest, in an animal which we have initially felt has pulled through the heat stroke event.

Damage to the nervous system is probably the most dramatic in terms of initial clinical signs. Cell damage/loss or bleeding can result in brain swelling, and seizures, coma or death. Milder cases can show behavioural changes, such as lack of fear of people, or failure to move out of the heat source. If the hypothalamus is damaged, this has severe long term consequences in the animal's ability to thermoregulate, as remember, this is where the thermoregulation centre is located.

Finally, damage to the blood vessels throughout the body can be seen in animals with prolonged exposure to heat. The blood vessel wall is lined by cells, with the job of controlling what moves from the blood vessels into tissues, and vice versa. Their destruction leads to many clinical signs, including fluid leaking into tissues, coagulation occurring inappropriately, and drop in blood pressure/oxygen supply to the tissues.

All of this sounds rather dire - and it can be! The message is, that heat stroke is severe, significant, often progresses rapidly and can be complicated to manage. Bringing the temperature down as soon as possible is the first step, but any animal recovering from heat stroke will need close monitoring, veterinary assessment, and fluid support (plus/minus antibiotics) in the coming days. The prognosis remains guarded in all cases of heat stroke. Carers and veterinary staff need to be aware of the possibility of deterioration or death up to three weeks post event. Any animal that has been in a heat stroke situation should thus remain in care, and be closely monitored for at least this period of time.

Some of the clinical signs you will see with heat stroke include: panting and hypersalivation in an attempt to cool down, elevated heart rate, and RED/injected mucous membranes (blood vessels are dilated to try and lose heat), increased blood pressure, distressed animal, and a body temperature more than two degrees higher than normal for that species. As the heat stroke worsens, you will start to see some changes which can be confusing. The body temperature can actually drop as the animal goes into shock. Mucous membranes can become cyanotic (blue) as oxygenation falls, if the lungs are affected. Blood pressure falls, though heart rate remains high, and respiratory rate increases as an attempt to compensate for shock/lack of oxygenation. You may see bloody diarrhoea, dehydration, and depression/seizures. At the end point (terminal animals) you will see diffuse areas of pin point haemorrhage - a sure sign of blood vessel damage, liver damage, and coagulation abnormalities. The animal will become dull, comatose, and ultimately die, generally from cardiac arrest.

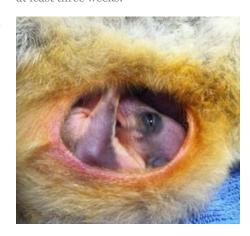
The mainstay of treatment remains minimizing stress, and commencing active cooling to bring the temperature down quickly, but with care not to produce hypothermia (body temperature dropping too low). Applying ice, or ice cold water is NEVER advocated, as it can result in an overshoot in temperature drop, and shivering as the animal gets too cold. It can also result in the blood vessels in the skin shutting down in reflex to the sudden cold and this is the main way heat is being lost, so this will then make the overall situation (overheated cells/organs) worse, as heat is retained.

So, when cooling, it helps to firstly have a baseline temperature. What is normal for this species? What is the actual temperature (use a digital thermometer if safe and practical for the species)? If you can't check the actual temperature, then having a good idea by feel of how hot the skin is, and what the clinical signs are, will give you a clue. Ultimately veterinary assessment and management are gold standard, but you can certainly begin the cooling process, as the sooner temperature drops the less the damage is done to the body systems. Using a spray bottle to spray (not drench) the animal, and a fan will massively increase natural heat loss and start reducing the damage being done. Our goal, at this non hospital point, is to aid the natural mechanisms of the body, primarily by evaporation and convection Regular reassessment of the body temperature is advised to monitor the drop, with the goal being to stop active cooling (but ensure the animal is in a cool environment, away from the heat) before you reach their normal temperature. This prevents OVER cooling.

Generally, in all but the mildest cases, supplemental fluids (subcutaneous, or intravenous) will be required. These will replace those lost to cooling, or due to cellular damage in the periphery. A veterinary assessment will guide fluid therapy, and is also important for proper assessment of the kidney function, as well as checking for infection/other signs of organ damage. In terms of other medications to give, this should also be guided by the veterinarian, and can include sedatives, steroids, diuretics, antibiotics, ongoing fluid use, or gastrointestinal protectants. Note that in these cases, the use of meloxicam as a pain relief can actually be dangerous, and make the prognosis WORSE. This is especially the case in those animals with kidney or gastrointestinal compromise. Generally in mild cases of heat stroke, of a short duration, the prognosis is good with rapid, safe cooling.

The problem with many of our wildlife cases is, that they resist capture for as long as they are physically able. This means that often the heat stroke is of an extended duration, because the animal is trapped (possums in the roof) injured ( has been hit by a car/domestic animal attack resulting in compromised mobility) or otherwise unable to move away from the heat source (joey in dead mother's pouch on the road, bats in heat wave).

We need to be mindful of this when we start management of these cases. Assessment of body temperature by thermometer, or at very least by feel, will give us an idea of if the animal is hyperthermic (overheating) or hypothermic (too cold). The immediate management of these conditions is crucial to giving the animal a chance, but always bear in mind the possibility of complications down the track, and the need for close observations for at least three weeks.



Common Brushtail Joey- typical candidate for hyperthermia and heat stroke in summer, where mother has been killed on the road Photo: Robun Stenner

## Accommodation Needed Urgently

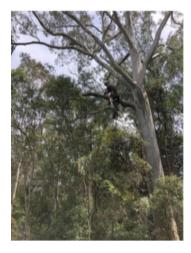
By Eleanor Hanger

Over three hundred species of animal in Australia use tree hollows for resting, nesting or breeding These animals include many species of birds, mammals, reptiles and frogs as well as some species of invertebrates. Hollows may take from one to four hundred years to form so the loss of old growth trees is of major and ongoing concern.

Nest boxes have been used by wildlife carers for animals that have been in care, so that on release they have a place to shelter. Recently my nest boxes needed checking and some needed replacing. As well as having some new ones installed, I decided to have some artificial hollows created in suitable eucalypts; trees that were at least 60 years old but as yet showed no hollow development.

To undertake the work I employed Habi-Tec, a company with a strong conservation ethic and an understanding of the needs of our hollow-using wildlife. Habi-Tec provides a range of tree services and has been creating artificial hollows or cavities for many years. It seems that often people think a tree needs removing for safety reasons, when in fact it may be perfectly healthy and only needs one limb, which could potentially cause a problem, removed. This is where a company like Habi-Tec is such an asset to our region, as its directors are only too conscious of the loss of habitat that is occurring. They are committed to minimizing the damage where possible, by saving trees that can be saved and creating hollows in suitable limbs.

It was interesting to note a pair of Rainbow Lorikeets investigating the new accommodation within two days of the work being completed.





Work in progress
Photos: Steve Collom



#### Some Abbreviations commonly used in Veterinary Pharmacology

s.i.d.	Once daily	amp.	ampule		
b.i.d.	twice daily	cap.	capsule		
t.i.d.	three times daily	tab.	tablet		
q.i.d.	four times daily	tbs.	tablespoon		
q4h	every 4 hours	tsp.	teaspoon		
q8h	every 8 hours	PO or per os	by mouth		
g	gram	IM or i/m	intramuscular		
mg	milligram	IP	intraperitoneal		
ml	millilitre	IV or i/v	intravenous		
		SC or s/c or SQ	subcutaneous		
Ad. lib.( Ad libitum) - without restraint (e.g. free access to food and/or water					

It is of the utmost importance to administer medications as directed by your veterinarian – correct drug, at the correct dose and for the correct length of time. Each animal deserves to have a correct diagnosis and the correct medication prescribed for that problem and that species. We never use left- over drugs on an animal that we think has the same symptoms as one we have had previously. There are many reasons, not least among which is the fact that the problem may be a totally different one from what we thought it was, or that species may be intolerant to that particular drug, or the drug may have a short shelf life.

If you haven't understood what your veterinarian said, or can't remember the instructions, don't hesitate to ask for clarification, or to have the instructions repeated. Your animal's life may be jeopardized if you don't.

Detailed information on this topic can be found in the manual, Rescue and First Aid for Wildlife, published by Wildcare Australia Inc.

## Exclusion/Cluster Fencing

By Eleanor Hanger

Exclusion or cluster fencing is being embraced all over Queensland. It is of great benefit to farmers and graziers, protecting crops, and stock from wild dog attack, but at what cost to wildlife?

The fences come in different designs; some have a skirt of wire to prevent digging, some have barbed wire top and bottom, most would be at least 1.5 m high or higher. This type of fencing over broad areas of the landscape poses some serious problems for wildlife, whose movement over the country to obtain food and water is severely restricted, ultimately leading to death. This is a welfare issue that requires immediate attention.

More information can be found on the web. Also please consider contacting the Department of Environment and Science to express your concern and to ask what measures are being taken to address this issue. <a href="https://kb.rspca.org.au/what-arepthe-welfare-issues-associated-with-barrier-and-cluster-fencing\_713.html">https://kb.rspca.org.au/what-arepthe-welfare-issues-associated-with-barrier-and-cluster-fencing\_713.html</a>





Photos published with permission

## Private Developments in National Parks

By Eleanor Hanger

Initially National Parks in Australia were established for the pleasure, health and well-being of the community. With an expanding population, Sydney in the mid-19th century was becoming a rather overcrowded and unsanitary city.

The city fathers decided that an area in the country should be set aside for recreation, where people could go to breath fresh air, to exercise, to picnic and generally to enjoy nature. It was suggested that making such an area available to all the community would improve the health of the citizens.

In 1879 the first park, known as the National Park, was created south of Sydney. It was renamed the Royal National Park after the visit of Queen Elizabeth II in 1954. At this time there was no thought of protecting areas to preserve ecosystems or the biodiversity of their native flora and fauna. In fact quite the contrary. Acclimatization societies were actively importing plants and animals from around the world to enhance Australia's parks, gardens and bushlands.

Other states followed suit establishing National Parks, with Queensland designating its first National Park, the Witches Falls National Park on Mt Tambourine, in 1905. Over time some far-sighted men urged the Government to set aside more tracts of land for national parks. One, Mr Romeo Lahey, wrote to the Queensland government in 1911 urging the then Minister for Lands to reserve an area on the Lamington Plateau in south-east Queensland.

Mr Lahey's struggle continued for four years and was notable in that he made reference to the magnificent scenery and spectacular flora and fauna, much of which was found nowhere else in the world. In pleading for the protection of these unique forests. Mr Lahey said, "every race owes certain duties to its descendants, chief of which is to preserve, develop and hand down the great heritage, which has been given it. In what sense, then, can a people have performed its duty, if in years to come one of its descendants can say, Oh, yes, but where are those forests you talk of, those animals which were the wonder of the world, those birds that scientists came from the four corners of the world to see, that scenery which you say had no peer?" Great that nation whose men can put their fingers on the map and say, "Here, and here, and here you can see Nature undisturbed." (J.K.Jarrott, 1990. History of Lamington National Park. J.K.Jarrott and the National Parks Association of Queensland Inc.)

In 1915 the Lamington National Park was gazetted. Mr Lahey's reference to our duty of care to our descendants recalled to mind a case in the Philippines in 1993. Oposa v. Factoran is a landmark decision of the Supreme Court of the Philippines which recognizes the doctrine of Intergenerational Responsibility on the environment in the Philippine legal system. The case is a contributor to the development of international environmental law.

The action was filed by several minors represented by their parents against the Department of Environment and Natural Resources to cancel existing timber license agreements in the country and to stop issuance of new ones. It was claimed that the resultant deforestation and damage to the environment violated their constitutional rights to a balanced and healthful ecology and to health (Sections 16 and 15, Article II of the Constitution). The petitioners asserted that they represented others of their generation as well as generations yet unborn.

Finding for the petitioners, the Court stated that even though the right to a balanced and healthful ecology is under the Declaration of



Principles and State Policies of the Constitution and not under the Bill of Rights, it does not follow that it is less important than any of the rights enumerated in the latter: "[it] concerns nothing less than self-preservation and self-perpetuation, the advancement of which may even be said to predate all governments and constitutions". The right is linked to the constitutional right to health, is "fundamental", "constitutionalised", "self-executing" and "judicially enforceable". It imposes the correlative duty to refrain from impairing the environment.

The court stated that the petitioners were able to file a class suit both for others of their generation and for succeeding generations as "the minors' assertion of their right to a sound environment constitutes, at the same time, the performance of their obligation to ensure the protection of that right for the generations to come." More information here. Under Australian law no such action could be brought, but it is worth pondering. Should we change our Australian law?

With the passing of the years, the importance of national parks as the last remaining sanctuaries for endangered and potentially endangered ecosystems with their wealth of flora and fauna, many species as yet undescribed, is undeniable. Protecting national parks for their biodiversity should now be a priority and private commercial activities should not be permitted under any circumstances, not only for the above mentioned reasons, but because any developments in the national parks will seriously compromise their conservation values. Private commercial activities, by their very nature as businesses whose aim is profit, will restrict the accessibility to those who can afford to stay in or make use of the facilities provided by "ecotourism" resorts. As they stand national parks are accessible to all for picnicking, walking, birdwatching, enjoying the beauty and diversity of nature.

Tourism is a multimillion dollar industry generating jobs and providing income for communities. Nature-based experiences are sought by national and international visitors, and the positive value of such experiences cannot be overemphasized, giving pleasure and enhancing appreciation of nature, which in turn will lead to a desire to protect it. However ecotourism resorts and their allied activities have no place in national parks; they can equally well be developed alongside or nearby our national treasures.

The Queensland government is now calling for Expressions of Interest (EOI) for construction of tourist facilities in three of our National Parks and Wildlife Queensland has asked members to sign a petition calling on the government to withdraw the EOI and not issue approvals for construction of tourist facilities in national parks. See the petition site <u>Here</u>

By Daniel C.K.

## Poems of a #sadboy

Those of you who have enjoyed Daniel's poems in our newsletter will be delighted to know that he has published a collection of his work in a book, "Poems of a #sadboy".

The book includes poems covering many themes, from lighter topics to darker subject matter. It will make you laugh and cry, as Daniel says in his Prologue "I think the role of fiction .....is to invoke joy or sadness or to provoke thought and encourage conversation on sometimes difficult topics".

For more information and to order a copy www.danielck.blog

Daniel has very kindly offered to donate 25% of the purchase price from the sales to Wildcare.





#### Is this love?

Do I not love her, as They do? Do I not accept her as she is, Never trying to change her? I'm an outsider Estopped from calling her mine; A subsequent husband, Step kids that'll never shout 'Dad'.

Seventh generation Australian.
Alas, not native Australian.
Spiritual connection, of sorts
(Despite mild fear of appropriation).
She's in me - I feel her in my waters.
Yet our intimate connection's thwarted,
Membership of an inner sanctum, denied.

Colour of my skin, my heritage, The impasse. 180 flipped racism; Whitefella claim on blackfella land. A forbidden love affair, To be kept secret? No - Another perspective on a beautiful bond.

Detest those that do her harm, Dig up vital organs, Leave yawning holes in her. A son's vow to protect An ancient grandparent From those who cluster-bomb her flora, Introduce ferals extincting her fauna.

Overcome by maniacal madness (No, not mental health woes)
When confronted by her foes.
Gentle animal lover
Snaps at flopping canetoads,
Fill water-guns with diluted Dettol.\*
Instigate vicious sub-terraneal attacks
At confrontations of gangs of Lantana, Privet, Ochna.

Level of acceptance reached for Volatile aspects of her personality. Take pride in them (Regularly, condescendingly re-tell others); Histrionic flooding, Bouts of drought depression, Rising anxiety humidity.

Left her.
Occasionally.
Briefly.
Heeded calls home;
A toddler wandered too far from Mom.
Felt familial,
Magnetic pull back.

DNA test,
A mongrel's mix of heritage;
Irish, a bit of Welsh, French
(Pinch of Scandinavian apparently...).
Been to Ireland once,
Grasp little of her essence.
Loudly, obstinately proclaim;
"I know but cannot share it, my love is otherwise".

In lifelong relationships, Learn a little more of the other each day. Bow for her more unpredictable traits; Tanks preserve sobbing deluge of tears, Shiny roof-plates capture hot-headed tempers. Insignificant acts of compromise Over a lifetime of love.

#### ©danielck2018

#### \*Editor's note

The use of chemicals is not considered to be a humane method of disposing of cane toads. Cane Toads suffer pain and stress, so while they are responsible for considerable environmental damage this does not justify using methods which cause suffering and a slow death. The latest method, considered by research and welfare organizations, to be a humane way of dealing with cane toads, for members of the public who may not have the benefit of veterinary assistance, is to use hypothermia. The toad is placed in a bag in the refrigerator for a few hours and then put in the freezer for a few days after which time it can be buried or placed in the rubbish bin.

It is important to ensure that the animal is correctly identified as some Australian native frogs look very similar in appearance to toads.

Cane toads have toxins in two raised glands behind their eyes. It is recommended that gloves are worn to handle them, even though if gently handled they usually will not release their toxins.

So a few points to note:

- Identify correctly;
- Destroy toad eggs;
- Don't spray them with chemicals;
- Don't bash them with heavy implements, golf clubs etc.;
- Don't run over them;
- Do handle gently, using gloves;
- Do use hypothermia to euthanase them if there is no veterinarian available.

A couple of the websites I found useful:

https://smh.com.au/technology/poisonous\_cane\_toads https://www.frogsafe.org.au/cane\_toads/dispose

Eleanor Hanger

As a non-profit organization, we rely heavily on the generous support of the community as well as the funding opportunities provided by local councils, private businesses and corporations. Wildcare kindly acknowledges the following councils, businesses and individuals who have provided essential support for our volunteer work.



**NOOSA CITY COUNCIL** - Funding received of \$4,778 under the Noosa Council's Community Grants Program to help cover consumables associated with attending trauma calls in the Noosa area as well as construction of a mobile release aviary.



**CITY OF GOLD COAST** - Funding was received from the City of Gold Coast under their Community Grants Program to support Wildcare's work with wildlife rescue and rehabilitation in the Gold Coast region.



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Our sincerest thanks to Greenleaf Images for the use of several of their beautiful photographs in our promotional material. The quality of the material would not be what it is, without the use of these professional images.













# GOLDCOAST.













# Thank you!



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Binna Burra Tea House

**Bradley Trevor Greive** 

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Redland City Council

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Scenic Rim Regional Council

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Sunshine Coast Regional Council

Tamborine Mountain Natural History Assoc.

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#### ALBERT STREET VET CLINIC

Beaudesert 5541 1233

## ANIMAL EMERGENCY CENTRE

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## ANIMAL EMERGENCY SERVICE

Carrara 5559 1599 Underwood 3841 7011

## AUSTRALIA ZOO WILDLIFE HOSPITAL

Beerwah 5436 2097

## CURRUMBIN VALLEY VET SERVICES

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Toowong 3613 9644

#### TUGUN VETERINARY SURGERY

Tugun 5534 1928

#### VETCALL

Burleigh 5593 5557 Mudgeeraba 5530 2204

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Stafford Heights 3359 0777

Note: UQ Small Animal Clinic St. Lucia has now moved to the UQ Gatton Campus.