



# thylacinus



# thylacinus

VOLUME 46 ▪ No. 1 ▪ 2022

**Cover photo:** Leopard Coming down a tree Maasai Mara National Park

**Credit:** Tyler Gralton

## EDITORS

Liz Notley ASZK

## PROOFING EDITORS

Carla Srb and Liz Notley

## LAYOUT AND TYPE-SETTING

Liz Notley ASZK

Opinions expressed in this publication are those of the authors and are not necessarily those of the editors or ASZK.

## COPYRIGHT

Australasian Society for Zoo Keeping

## ADDRESS ENQUIRIES TO:

Australasian Society of Zoo Keeping  
PO Box 4059  
Lalor Park, NSW 2147

WEBSITE <http://www.aszk.org.au>

## COMMITTEE MEMBERS 2021-2023

### President

**CHRIS DRYBURGH**

*Taronga Zoo*

### Vice President

**ANDREW DALY**

*Taronga Zoo*

### Membership Officer

**CAROLINE DALY**

*WILDLIFE Sydney Zoo*

### Treasurer and international Liaison

**JOCELYN HOCKLEY, Sydney Zoo**

### Secretary

**JENNA HOLLAMBY, Perth Zoo**

*International Liaison*

**JOCELYN HOCKLEY AND CHRIS**

**DRYBURGH**

*ASZK Committee*

**RICHARD ROSWELL, Werribee Open**

*Range Zoo*

**KAREN JAMES, Taronga Western**

*Plains Zoo*

**JOANNE THOMAS,**

**MELVIN NATHAN, Melbourne Zoo**

**DANIEL RUMSEY, Australia Zoo**

**JO WALKER, Taronga Zoo**

**SIMON HUSHER,**

**LIZ NOTLEY, ASZK**

**DAVID KELLY, Rainforestation**

*Nature Park*

**AMY CARTER, Taronga Zoo**

**SAMUEL HERMAN, Australian**

*Reptile Park*

**BONNIE DOEGE, SeaWorld**



## FROM THE PRESIDENT Chris Dryburgh

Well it's all systems GO with some very exciting Conference plans being developed and finalised! We are really looking forward to catching up with everyone in person in Cairns in late August – the first time many of us have been able to come together for far too long – the Committee included! We are very generously being hosted by the CAPTA Group who proudly boast several premium facilities around Queensland's Wet Tropics Region, including Rainforestation Nature Park Kuranda, the Australian Butterfly Sanctuary and Wildlife Habitat Port Douglas. Make sure you register online to secure your attendance, and as always, there are discounted registration rates for current ASZK Members so make sure your Membership is up to date in time!

During the middle of May, our Committee are meeting to develop the ongoing Strategic Plan for the ASZK. This is the development and delivery of a plan to guide a three-year period of objectives to continually improve the Society, our goals, our strategy and our evolving relevance in the professional animal care industry. Once finalised, this strategic plan document will be accessible to all members.

Keeping busy in May, Saturday the 14th will also hold the AGM of the Society. Again, we invite all current Full and Associate Members to attend virtually, with all log-in access details circulated across our website and email. We have had a couple changes in our General Committee of late. After serving on Committee for four years, Em Bembrick of Taronga Zoo has stepped down from Committee. We wish Em all the best and thank her for her contribution to Committee over the years, and broader support of the ASZK from far earlier than her Committee term. Additionally, we welcome Holly McDonald on Committee who joins us from Wellington Zoo, New Zealand, via an out of session Committee vote. Holly comes to us with glowing references and her contributions will be best applied to 'flying the ASZK flag' throughout New Zealand, as well as becoming a more direct liaison on the ground to coordinate developing plans as Wellington Zoo progresses towards hosting the 2025 ICZ Congress, anticipating the attendance of several hundred of our colleagues from facilities all over the world in three years.

Just lastly, we are gearing up to opening our 2022 ASZK Wildlife Photography Competition again shortly after a booming uptake late last year for the 2021 comp. We'll be running the comp over the next couple of months to finish up in time for all Conference delegates to review our short-listed finalists, and vote on category winners and People's Choice, live in Cairns. Keep an eye out on our social media for announcements, but get ready to get snappy! Looking forward to seeing as many of you as possible in Cairns in August when we get Back 2 it in 22!

Chris

# contents

NO. 1 • 2022

ASZK Conference 2022..... 3

Connecting our Zoos – The Expansion of the Regent Honeyeater Recovery Program to TWPZ..... 4

Voluntary tooth extraction in a geriatric California Sea Lion, an example of how far co-operative husbandry training can be taken ..... 7

Handover Of The Koala, Reptile And Logistics (KLR) Team..... 10

ASZK Funding Report Update from Kangaroo Island Land for Wildlife ..... 13

Meet an ASZK Member ..... 15

Meet the ASZK Committee part 2..... 17

ASZK New Members .....19

Zoo News ..... 20



**About our cover photo: Tyler Gralton – Leopard coming down a tree - winner wild photo - ASZK Photo comp 2021**

After a month of searching Ol Pejeta Conservancy, Kenya, looking for cheetahs for a census project with Serendipity Wildlife Foundation, I took a short trip to the Maasai Mara National Park. A first morning filled with lions, elephants, giraffes, was peaked very early when coming across a mother leopard and her sub-adult cub.

Two and a half hours of watching the mother and cub paid off, with hundreds of photos of playing, feeding, and moments of extraordinary agility only possible by leopards. This image, “Mother Leopard”, is one of those unbelievable, gravity defying feats that was made even more impressive by the countless clumsy attempts of her cub.

## TO SUBSCRIBE TO *THYLACINUS*:

**Join ASZK**

**Full individual members - A\$70**

**Associate individual members - A\$70**

**Please enquire for details on institutional memberships.**

**All membership enquiries to:**

**ASZK**

**PO Box 4059, Lalor Park, NSW  
Australia 2147**

**or visit <http://www.aszk.org.au>**





## **BACK 2 IT IN 22 - CAIRNS -**

**ASZK ANNUAL  
CONFERENCE  
26-28 AUGUST 2022  
CAIRNS, QUEENSLAND**

### **Call for papers**

The ASZK Committee is excited to announce the upcoming ASZK conference is finally back to face to face.

For information on registration please visit the ASZK website  
[www.aszk.org.au](http://www.aszk.org.au)

If you would like to lead a workshop which focuses on developing animal keeper skills that include but are not limited to safety, husbandry, enrichment, welfare, ethics, training, or enclosure design, please send a short description of the workshop along with an explanation of your expertise in this area.

The abstract should include:

The paper or poster's title

Presenter's name, title and a short biography and a photo (attached separately)

Presenter's institution

Presenter's email address

No more than 400 words summarizing the intent of the paper.

Presentation of papers must not exceed 15 minutes.

A complete copy of the presentation paper suitable for publication (in Word format) must be submitted at the time of the paper presentations. Please ensure graphics are submitted as separate graphics files (i.e jpeg, tiff) and are of the highest possible quality. Full presentation papers will be published in upcoming issues of "Thylacinus".

Please submit abstracts to Liz Notley – [liznotley61@gmail.com](mailto:liznotley61@gmail.com) or [eo@aszk.org.au](mailto:eo@aszk.org.au)

**Submissions close 30 June 2022**



---

# CONNECTING OUR ZOOS – THE EXPANSION OF THE REGENT HONEYEATER RECOVERY PROGRAM TO TARONGA WESTERN PLAINS ZOO

**KARA STEVENS, TARONGA WESTERN PLAINS ZOO**

[kastevens@zoo.nsw.gov.au](mailto:kastevens@zoo.nsw.gov.au)

---

The Regent Honeyeater is a medium sized black and gold, critically endangered bird with fewer than 400 individuals left in the wild. This once widespread species occupying ironbox and mugga Eucalypt woodlands is now limited to a few known breeding sites across NSW and Victoria, where once its range extended from QLD all the way down into SA. With a small population the Regent Honeyeater is vulnerable to the pressures of competition for food sources and breeding sites from birds such as the Noisy Friarbird, Noisy Miner as well as nest raiding mammals. Environmental pressures from development such as habitat fragmentation, food scarcity and fewer flowering events may also lead to the small population size and genetic bottlenecks we are currently seeing. Due to increasing pressures on survivorship and with numbers critical, a National Recovery Program was proposed and works begun on its strategy.

## **Zoo-based conservation at Taronga Zoo**

The Regent Honeyeater Recovery Team was created in 1995 and the zoo-based breeding component for the National Regent Honeyeater Recovery Program commenced in 1996 at Taronga Zoo in Sydney. The initial Nine wild caught Regent Honeyeaters were the basis for the success to come over the next 25 years. A breeding program and accompanying facilities were built onsite at Taronga Zoo to facilitate an expanding zoo-bred population.

To date the Taronga Conservation Society and other zoological institutions have bred and released 300+ Regent Honeyeaters back into the wild from the initial trial release in the Capertee to the recent 2021 Hunter Valley. The recovery effort and successes are showcased within the TCSA and alongside many other zoological institutions nationally. The success of the zoo-based recovery program has allowed the opportunity for the expansion out to Taronga Western Plains Zoo in Dubbo where three purpose-built aviaries were constructed to continue the objective of the recovery plan.



*Regent Honeyeater Adult*

---

## **Taronga Western Plains Zoo Expansion**

The expansion out to Dubbo included the construction of a breeding facility, flocking/flight aviary and a quarantine/holding facility. These facilities allow the holding capacity in the program to be greatly increased and ultimately increase release capabilities and breeding potential for the future. This also allows a large holding capacity for the exchange of birds throughout the zoological community in



order to increase genetic diversity and an easy quarantine/holding process. All aviaries were built under the guidance of zookeepers who have had remarkable success and have worked extensively with the Regent Honeyeaters and the recovery team. This transition out to Dubbo meant not only the Taronga Conservation Society could increase holding capacity but also an environment provided for the birds based on prior knowledge and exceptional husbandry.

Amongst severe drought, Taronga Western Plains Zoo (TWPZ) received 4.4 critically endangered Regent Honeyeaters from Taronga Zoo, Sydney on the 26th November 2019 as part of the zoo-based recovery program expansion to TWPZ and as part of Taronga's 'Save our Species' commitment. This move was a collaborative effort by a team of passionate and motivated individuals and organisations. The expansion was encouraged and supported by organisations heavily involved in the Regent Honeyeater's survival, whether involved directly with the recovery team, program or supportive in the construction and maintenance of the facilities at TWPZ.

### ***TWPZ's First Breeding Season***

2020 was the first breeding season for the Regent Honeyeater at TWPZ with 6 pairs set up in the new breeding facility with each pair given an enclosure to themselves to reduce competition and aggression between males. Pairs were first introduced to each other during the month of June with a general breeding season ranging from June-January inclusive, with each pair providing desired genetic traits for breeding. Each aviary measures 6m x 6m x 4m and are planted out with natural food and browse trees such as Acacia sp., Grevillea sp., Melaleuca sp., and Poaceae sp. Other nesting material was supplied to allow females to build and maintain nests similarly to their wild counterparts such as coconut fibre, feathers (particularly Emu) and spiderweb.

The first breeding season in 2020 was an exceptional success with 6.6.0 Regent Honeyeater producing a total of 33 chicks between June and January 2021. The collaboration between keepers from TZ in Sydney and TWPZ in Dubbo has been a fundamental step towards the expansion and the successful first breeding season at TWPZ.

With our first breeding season ending with a 100% success rate, the prospects of an even better 2021 season was positive.



*Breeding facility*



*Flight/Flocking Aviary*



## **Progression from Nest to Release**

Regent Honeyeaters have a short incubation, nestling and fledging stage with chicks leaving the nest from hatch within two weeks. With a 14-day incubation, females produce between 1-3 eggs which after the 14-16 day nestling stage fledge from the nest. Fledgling Regent honeyeaters remain in the aviary with the Dam and Sire until they are self-sufficient and are removed at approximately ~34 days of age. Where in the wild juvenile birds will disperse, the birds are transferred from their parental aviary into an aviary with other juvenile Regents. This aviary is called a creche aviary and includes other juveniles from other clutches/parents who will form a collective group until they are moved into the flight/flocking aviary at the end of the season. The creche aviary is an invaluable tool for juvenile Regent Honeyeater's to practise foraging/ hawking and learn song from surrounding adults. At the end of the breeding season, juveniles are sampled for morphometric data which determines gender and, in the process, have visual health checks by the vet team and fitted with permanent metal leg bands.

In October 2021, Dubbo first year bred birds were released into the Hunter Valley as part of NSW's largest Regent Honeyeater release to date accompanying other zoo-based bred Regent Honeyeaters. With a group count of 58 birds released, the release of Dubbo's first year birds were a large accomplishment. To date, post-release monitoring is ongoing at the release site and surrounding woodlands.

## **2021 Breeding Season**

The 2021 season begun in June 2021 with 8 pairs of Regent Honeyeater in our breeding aviaries. With more pairs to monitor and observe this year we were well prepared

thanks to our fellow co-workers and the knowledge we gained from last years breeding season.

Each pair is selected using data entered in PMx software by the studbook holders for the Regent Honeyeater and recommendations produced for zoos involved in the breeding program. This software and pairing help to keep the genetics in zoo-based breeding programs diverse and strong.

To date (November 2021), 7 of our 8 pairs of Regent Honeyeater have produced at least 1 clutch of chicks so far in this season with the prospect of high success again following last year. With the knowledge we have gained and continue to learn, these zoo-bred birds will have the skill and fitness to be released back into the wild in the near future.

## **2021 and Beyond**

With our success through this evolving expansion from TZ to TWPZ, we are looking forward to our continuing involvement with the Recovery Team and our partnerships with local and national organisations to help save this species, to continue our expansion and create an environment for these birds to thrive we are adding additional species now and into the future to our purpose-built flight/flocking aviary.

This will ensure the Regent Honeyeaters will learn important skills for their release into the wild such as competition for food and resources as well as predator awareness. All these skills learnt will help to ensure a high success rate with released birds or years to come.



*Nest with eggs*



*Fledgling Regent Honeyeater*



*Juvenile Regent Honeyeater*



## VOLUNTARY TOOTH EXTRACTION IN A GERIATRIC CALIFORNIA SEA LION, AN EXAMPLE OF HOW FAR CO-OPERATIVE HUSBANDRY TRAINING CAN BE TAKEN.

**ERIN OAKLEY, SEA WORLD AUSTRALIA**

[erin\\_oakley@vrtp.com.au](mailto:erin_oakley@vrtp.com.au)

The Sea World marine animal training team aims toward a gold standard in its preventative medical program (PMP), including voluntary body examinations, blood collections, vaccinations, x-rays and ultrasounds, all of which require an extensive amount of desensitisation training with the animal and rapport with the trainers. However, at times some animals can present with challenges that go beyond routine husbandry training.

One of six male California Sea Lions, *Zalophus Californianus*, residing at Seal Theatre at Sea World is a geriatric 26 year old male named Wendell. With the average age for this species being 15-20 years, Wendell is the oldest California Sea Lion in our collection. Weighing in at over 320kg, he is a dominant member of our colony and has lived a long and healthy life at Sea World. He has established strong bonds with his trainers, proving to be a highly motivated participant during training sessions and very confident and relaxed during our PMP training.

When Wendell presented for his daily health check he revealed a broken tooth along the lower right-hand side jaw, showing minimal sensitivity however, the top of the tooth was cracked off and he had potentially exposed the core of the tooth below the gum-line, opening up the opportunity for infection. Image 1

Being a mature sea lion, his teeth are naturally black due to the bacteria that lives in his mouth darkening the enamel over time, and Wendell's baseline behaviour for mouth cleans and tooth brushing was already very solid due to years of conditioning, which allowed our vet to have a thorough examination of his tooth.

In order to assess the potential for a tooth root abscess developing the Vet team ordered a Radiograph on Wendell, involving him laying over the X-ray plate, holding his mouth ajar, slightly tilted and completely still in order to get a clear image of the jaw. Figure 2. The X-ray behaviour involved a small amount of desensitisation



Image 1 - Wendell's cracked tooth, on his lower right-hand side jaw (Erin Oakley)

training, where Wendell was trained to lay down on a X-ray plate, covered in plastic to protect it from his wet coat. He needed to maintain an open mouth position remotely and have the vet stand over him with the X-ray machine to capture the image, all while remaining completely still.

The X-ray image showed that the tooth was in fact cracked down to the root, with the core exposed and Wendell received a dentist visit from dental specialist Dr Aaron Forsayeth, from Advanced Animal Dentistry and he informed us that the tooth needed to be extracted.





*Image 2- Sea World vet Dr Claire Madden capturing a dental radiograph on a California Sea Lion, Elvis. (Erin Oakley)*

We had two options to remove the tooth; Option 1 was to surgically remove the tooth under a general anaesthesia, something that is risky with California Sea Lions due to their sheer size. All pinnipeds are an innately challenging species to anaesthetise due to respiratory and cardiovascular complications that commonly occur. In addition Wendell being over 300kg complicated the inherent risk for this taxa, and it also required our larger vet team to all be present. Option 2 was to train a voluntary extraction, where if it failed we could progress along the surgical route.

So with the combination of Wendell's calm demeanour and his positive, confident attitude toward PMP behaviours and Dr Aarons willingness to try to extract the tooth with Wendell conscious, it was decided to train the extraction as a voluntary behaviour.

We used a basic model of systematic desensitisation using counter conditioning (Zeglis, 2014) to train the behaviour, and therefore we had to plan for every contingency. In order to prepare for this, the first step we took was to discuss with Dr Aaron how extensive the root system was, how

much pressure he needed to use to extract the tooth and the steps that he would need to take in order to extract the tooth painlessly. We considered all aspects of sight, sound, smell, touch and taste that Wendell would need to learn to generalise for the behaviour to be effective.

With the same 2 trainers leading the training sessions, we were aware of how consistent we needed to be in these training sessions, slowly building up not only Wendells tolerance and confidence in each session, but most importantly duration.

In order to help Wendell hold his mouth open and give him a support we decided to use a simple padded ski handle and a bench for him to lean on, which also gave him an area to station on. As the mouth support was a simple ski handle, Wendell had the choice and control in the sessions of opening his mouth when comfortable, and removing his mouth from the handle if he was feeling uncomfortable. (Image 3)

We needed to expose Wendell to simple things like the feeling, taste and smell of gloved hands in his mouth, holding the handle in his mouth, leaning on a bench, having weight put on his lower jaw all while maintaining the mouth open behaviour. We also exposed him to unfamiliar faces crowding around him closely, the feeling and taste of lignocaine gel on his gums and tongue, and pressure on the gum line imitating the sub cutaneous lignocaine injection. The feeling and sounds of metal tools touching his teeth were also exposed. We finally progressed to occasional small needle pricks in the gum line, which he showed good tolerance to. The most important thing we trained for was manipulation and duration.



*Image 3- Wendell holding the ski handle in his mouth, while the trainers play dress up as the dentist and vet. (Erin Oakley)*





As we went along in these sessions we would systematically add different things in each session, progressing slowly as Wendell showed increased confidence and tolerance to new contingencies. As the dentist could not be part of the training sessions, where possible we would have the vet team or curator play the role of the dentist, exposing Wendell to different individuals other than the training team, or we would have the trainers playing the dentist role dressing up in different clothes. We did this as we have previously seen some seals show an aversion to the vet.

On the procedure day, Wendell was well prepared for the procedure, with just over three months of conditioning, he completed the process well, accepting the lignocaine gel, being dry penned for 10 minutes for it to numb the area, accepting the lignocaine local injection in multiple injections in the gum line, (Image 4) dry penned for a further 10 minutes and then staying very still for the extraction, with each of the trainers surprised how quickly the tooth was extracted, as we had trained for much longer duration and manipulation. (Image 5)

Throughout the procedure Wendell received secondary reinforcers of verbal praise and tactile and was given rest periods. He was reinforced well with primary reinforcement after each effort of holding his mouth open for Dr Aaron to extract the tooth. The excellent rapport and trust that Wendell has with his trainers was very evident in his tolerance and willingness to participate in the procedure

Wendell has been a valuable example that it is very possible to train animals to cooperate with almost any type of medical procedure voluntarily, using a well thought out systematic desensitisation plan and behavioural conditioning (Ramirez, 1999).

We would like to acknowledge Dr Aaron Forsayeth for his trust in Wendell, Dr David Blyde and his vet team, Curator of mammals and Birds Mitchell Leroy, Seal Theatre Supervisor Donna Ashburn and all the Seal Theatre training staff that assisted in training Wendell.

## References

Ramirez, K. (1999) Animal Training: Successful Animal Management through Positive Reinforcement. Shed Aquarium. Chicago.

Zeligs, JA. (2014) Animal Training 101. Mills City Press, Inc, Minneapolis.



Image 4- Wendell receiving the lignocaine injection in his gum. (Mitchell Leroy)



Image 5- Dr Aaron extracting the tooth (Mitchell Leroy)



Image 6 - Wendell (Erin Oakley)





## Handover Of The Koala, Reptile And Logistics (KLR) Team

*Brittanie Beckett and Caitlin Ondracek, Moonlit Sanctuary.*

Through the past two years, like many other small businesses, Moonlit Sanctuary in Pearcedale, Victoria faced challenges of all shapes and sizes. One came in the form of staffing changes, including farewelling some, welcoming others and necessary restructuring of teams during lockdowns.

In order to protect our staff from the looming covid crisis, staff were split into three groups to create 'insurance populations' of keepers, and our department teams were dissolved, meaning to an extent, all staff pitched in to help with all departments. Although it meant seeing our colleagues less often, the advantage of this was that we could diversify staff skillsets whilst protecting the daily operations at the park.

Coordinators diversified too, with the Koala coordinator Britt Beckett taking on the Reptiles and Logistics departments, merging the three areas to be managed together. This was in part due to a reduction in visitors and international tourists, as well as the long closures and taking time to improve our efficiency with daily tasks. With years of coordinating the Koala team under her belt, Britt picked up the new processes quickly. Whilst initially feeling a little overwhelmed and with limited reptile experience, Britt found a mentor in Blaire Bunter, Assistant Life Sciences Manager at Moonlit and the former Reptile/Logistics coordinator. Not only that, she also now had a larger team full of passionate and knowledgeable keepers to support her.



One of the hardest yet most exciting staff changes of all has been seeing two coordinators leave their roles for the best reason ever, maternity leave! In August of 2021, Lauren Arabena, the Aves Coordinator, left to rear a human baby in place of all the birds she'd reared before, and by the end of February 2022 Britt will be doing the same.

## **BRITT BECKETT:**

The decision of putting my dream of being a zookeeper on hold to start a family was extremely daunting and one that wasn't made lightly. I started working at Moonlit 10 years ago, straight out of high school. My role quickly evolved from working in the café to running night tours, birthdays parties and volunteering on a weekly basis. On the day of my final university exam, Life Sciences Manager Lisa Tuthill called and offered me my first ever shift as a zookeeper. Many of us in this situation will remember that feeling of elation and being 'on cloud nine'. Flash forward to today and I have been so lucky to have learned skills in all different departments, as well as having the opportunity to be a Team Leader and Coordinator for three departments: Koalas, Logistics and Reptiles.

I know that many women in this field have had the same challenge of knowing that in order to give their full time and attention to a child, it means giving up roles they've worked hard to achieve. However, I knew it was something I personally wanted to experience in my life. My husband and I were lucky enough to fall pregnant fairly quickly and are expecting our little bundle on the 28th March 2022. I've hand raised baby animals before; how hard can it be? (A lot of laughs have been shared about how UNLIKE the two journeys are).

When Lisa and I met to discuss who would take over the role, there was a clear choice in Caitlin Ondracek. She has acted as the second in command for the Koala Department for years and has many skills that will see her flourish in the KLR Coordinator role.

## **CAITLIN ONDRACEK:**

Life has a way of throwing everything at you all at once, so I should have known to expect that, in combination with my postponed wedding swiftly approaching and international borders opening, my team leader of more than four years would pick now as the time to have a baby and offer her role to me! Britt was a seasoned coordinator but was still challenged by adding Reptiles/Logistics to her repertoire, and I'm learning how to coordinate all three departments from scratch. The Reptile and Logistics coordinator role has changed hands a couple of times in the past four years, but with improvements in efficiency and better task management systems in place, I am already set up for success by my predecessors.



*Caitlin checking stock levels of seeds and grains*

The KLR Coordinator role I am taking on is broken up into three distinct areas, each with its own unique challenges:

### ***Koala Coordinator***

Our koala population is made up of three males and two females, fewer than we've held prior to the pandemic, so the amount of time needed to maintain this department is less than it has been in the past. The role involves assigning daily, weekly or less frequent tasks to keepers, ensuring encounters and presentations run smoothly, managing the care of our three koala leaf plantations, and more. During the lockdowns, the koalas were primarily looked after by Britt and myself, however as I step back from the daily rounds, I'm excited for other staff to gain skills and take over their daily care.

### ***Reptile Coordinator***

In contrast to the koala department, Moonlit holds over 17 species of reptiles and amphibians, and over 40 individual animals in these taxa. The regular tasks are very different to koalas, sometimes requiring a second keeper for safety, or being allocated on a seasonal basis depending on animal activity levels. There are also simply more enclosures to maintain, including feed species such as feeder fish and crickets. Reptiles have a more complex set of environmental parameters needed to stay healthy, so this requires keeping on top of UV and heat globe function amongst other conditions. We have some exciting snake training projects the keepers are undertaking, and I can't wait to jump in to help them succeed in meeting their training goals.

### ***Logistics Coordinator***

Organising the logistics of a small park is still a big task and is one of the most important in the whole sanctuary as it affects every department. This includes ordering feed stock, keeping SOPs up to date, sourcing items or tools



---

requested by keepers or replacing broken items to keep everyone's days flowing smoothly. There is a challenge to avoid disruptions to our staff (and our animals) if stock runs low, and I personally do not want to suffer the stink eye from Alinta the Major Mitchell Cockatoo if he does not receive his daily half a peanut in a shell! I'm looking forward to streamlining some of these processes. When it comes to logistics, there are always areas to improve.

Accepting this position has also meant stepping away from some of the keeping teams I've loved being a part of, including the Aves and Show teams. I'm leaving behind some familiar shores to discover amazing new oceans, and an advantage of working for a small sanctuary is that I've worked a wide variety of areas and so I'm bringing with me on this journey a few tricks up my sleeve that I hope will afford a fresh perspective to the KLR department.

I am the resident pedant of spelling, grammar and record keeping, acting as Records Officer at Moonlit for a few years now. I have loved entering animal records into ZIMS, checking daily diaries and ensuring records are being kept correctly, and this is already helping with my logistics tasks of maintaining up-to-date SOPs, diet sheets, defrost instructions and ordering quantities. It's not every zookeeper's dream job but it's one I really enjoy! There's a satisfaction in knowing that my work directly leads to the smooth running of every other staff member's day.

Having been a part of the combined KLR team, my recent experience in the day-to-day activities has set me up well to shift from having tasks allocated to me, to doing the allocating. I also have a clear idea of what works and what doesn't, where further instructions or SOPs are needed, and how best to set up the team for success. If I've suffered confusion in the past, I can now ensure the next person doesn't experience the same.

My greatest secret weapon is my team. I've worked alongside some amazing keepers, and I hope that I can bring with me the relationships we've built working together into a team dynamic that sees free communication, trust, and an excitement to move the departments forward.

In saying goodbye to Britt (for now...), it has left room to welcome new keepers onto the team and build the

skills of our current keepers, so I immediately have the pleasure of passing on the tips and tricks that Britt and I have shared over the years, to train staff and create my team of super-keepers! They've already been able to get involved in plantation management, learn how to harvest koala browse, and even pick up a koala for the first time. So, whilst it is bittersweet seeing off Britt to start a new chapter in her life, I'm excited to take the helm, to continue her great work, and we can't wait to see her return to Moonlit to share her love of wildlife with the next generation of nature lovers.



*Alinta the Major Mitchell's Cockatoo and his peanut in a shell*

---

*Caption page 10 Britt Beckett and Caitlin Ondracek with Victor the Koala*



## ASZK FUNDING REPORT UPDATE FROM KANGAROO ISLAND LAND FOR WILDLIFE

*Heidi Groffen, KI Land for Wildlife*

*Dianne Pearson, KI Land for Wildlife*

*Chris Dryburgh, President ASZK*

**IMAGES GENEROUSLY PROVIDED BY KI LAND FOR WILDLIFE**

The summer of 2019-2020 is one that most Australians remember as being one of the most catastrophic bushfire seasons in recent history. Many dozens of destructive bushfires ravaged vast stands of habitat across eastern and southern Australia for many weeks.

The ASZK proudly offered funding for vital recovery and conservation work, through our Members' funding, streamed into the important work being carried out by the volunteer biodiversity conservation organisation Kangaroo Island Land for Wildlife, managed by Heidi Groffen and her committed team. KI Land for Wildlife identified the increased pressures that the land-clearing effects of the fires placed on the Critically Endangered Kangaroo Island Dunnart, *Sminthopsis aitkeni*, restricted to healthland of the western end of Kangaroo Island, in South Australia.

Kangaroo Island Land for Wildlife reported that the bushfires had destroyed over 200,000 hectares of remnant bushland, taking with it the entire known range of the Dunnarts, and all monitoring sites. With very few sightings of Dunnarts following the fires, and with the habitat now opened up for increased Dunnart predation by feral cats, the timing and effectiveness of the in-situ recovery efforts could not be more urgent with the fate of an entire species at dire risk of extinction. Encouragingly, restoration of habitat and cat exclusion fences would protect not only the Dunnarts, but will have an umbrella effect in protecting a number of other native species at risk following habitat loss to fires.

ASZK funding was secured to assist Kangaroo Island Land for Wildlife in the protection of these unique cryptic marsupials through five key areas;

- Locate remnant patches of unburnt vegetation and survey for the species through camera trapping.
- Replace the lost valuable survey equipment from the fires (cameras, fencing materials).
- Find the last few individual Kangaroo Island Dunnarts and protect them from feral predators

and further wildfire events.

- Protect the other Endangered species devastated by these fires, including Heath Monitors, Kangaroo Island Echidna, Southern Brown Bandicoot, Bassian Thrush and the Southern Emu-wren.
- Secure the ongoing management of the Western River Refuge property for conservation of Dunnarts and other threatened species within.

The team at KI Land for Wildlife have sent through the following update from the field, as they continue to prepare for fauna survey trapping across late 2021.

### *Fauna Trapping and Camera Surveys*

The Kangaroo Island Land for Wildlife team have continued KI Dunnart conservation efforts focusing on three main management zones; the Western River Refuge Management Zone (WRMZ), the North West Conservation Alliance Management Zone (NWCA), and the Church Road Management Zone (CHRMZ).

A total of 129 survey sites have been monitored across KI Land for Wildlife properties, with fifty sites yielding confirmed dunnart presence. Across all these sites over 50,000 individual detections have been analysed. Most encouragingly, between January 2020 and July 2021 KI Land for Wildlife have recorded 762 individual KI Dunnart detections post-fire.





After the 2019-20 bushfires, KI Land for Wildlife partnered with the Australian Wildlife Conservancy (AWC) and the landholders, the local Doube family to establish a 369-hectare feral cat exclusion fence, feral predator-free safe haven (Western River Refuge) which protects a suite of endemic and endangered wildlife. This area now protects a healthy population of KI Dunnarts, and is a safe haven for other threatened species including the Southern Brown Bandicoot, Western Whipbird and Bassian Thrush. Working with project partners, the long term seasonal vertebrate trapping pitfall sites were also established with two seasonal surveys achieved. Five sites were surveyed – one within the critical refuge, and four outside. A young female Kangaroo Island Dunnart was captured during the Autumn 2021 surveys on the first night of surveying. The female was a sub-adult and had not bred, suggesting that this animal was bred within or adjacent to the Western River Refuge.

At the North West Conservation Alliance sites, the scale of difficulty in detecting Dunnarts was put into perspective. 25,920 trapping nights were achieved across 20 sites with 747 individuals captured – none of which were a KI Dunnart. Dunnarts were detected twice at pitfall traps, without dropping in or being captured.

During September and October 2021, surveys across the Church Road Management Zone comprised of a total of 684 trapping nights. The weather toward the end of the trapping period was wet and cold which may have impacted trapping success. Unfortunately, no Kangaroo Island Dunnarts were captured during the trapping season. They are proving to be difficult to capture, even evading traps and surveys in known Dunnart habitat and with individuals observed on camera nearby.

Subsequent fauna trapping also occurred across Spring 2021, with results yet to be collated. Further preliminary plans to attach collars and radio-track individuals are progressing with the hope to gain further ecological information about Dunnarts.

### **Threat Abatement**

Feral cat control has been focussed around the three main management zones; the Western River Refuge, the North West Conservation Alliance and the Church Road management zone, with additional control occurring at South Coats and Middle River where previous control work has also occurred.

The Western River Refuge reached an incredible milestone in February 2021, in being declared feral free after three months of zero feral cat detections after fence closure. Continual monitoring will occur to prevent and detect any feral cat incursions.

Over 500 feral cats have been removed in the priority focus areas through continuous control efforts since January 2020. Feral cat control has been constantly occurring with a focus at the Western River MZ, North West Conservation Alliance and Church Road management zones.

Feral animal control officers use different methods to ensure the best capture efficiency. These methods include cage trapping, thermal shooting, scent lures, soft jaw leghold traps and 'Felixer' grooming traps. Continuous camera monitoring is also used throughout the different areas to help identify cats and alert the team to any new detections.

The KI Land for Wildlife program continues to engage with enthusiastic private landholders and is expanding its monitoring zone into new private land conservation properties to further bolster a future for the endemic Kangaroo Island Dunnart.

### **ASZK Bushfire Relief Funding**

Funding donated to Kangaroo Island Land for Wildlife by the Australasian Society of Zookeeping in early 2020, following the catastrophic bushfires of the 2019-2020 summer, has allowed the non-for-profit conservation organisation to continue all their various programs, in protecting habitat as well as populations of the KI Dunnart, Glossy Black Cockatoo, and other threatened species across Kangaroo Island.



*Images of KI Dunnarts during trapping - this page and opposite*





## Adam Swadling

LEAD ANIMAL KEEPER  
SOMERS SCHOOL CAMP

### • MEET AN ASZK MEMBER •

#### For how long, and whereabouts, have you worked in the Zoological Industry?

In 2007 whilst still at high school I started as a Zoo Trainee at the Rockhampton Regional Council Zoo. I did this until November 2008. Upon graduating high school, I moved away with the grand idea of working at a zoo in Cairns. My assumption was that now I have a “Certificate 2” in Animal Studies what zoo wouldn’t want me. Hard lessons were learned and I struggled to even get a job. Looking back, I may have been a little naïve. I then moved back to Rockhampton and volunteered at the Zoo while working as a farm hand. While volunteering at the Zoo I came to realise that the only way to get a job in a Zoo at Rockhampton was if someone died or retired. Lucky for me one of the Keepers had a near death experience (I can confirm I was not involved and he is doing a lot better these days). So, in 2010 I began working as a Zoo Maintenance keeper. This role was only temporary and as the end date approached one of the keepers fell pregnant (again nothing to do with me). I was extended and trained up as a Keeper “floater”. I trained on all rounds except for the exotics. I stayed at Rockhampton Zoo for the next 9 years. In my last year I even got to be on the exotics round (years of asking finally payed off).

At the end of 2019 I moved to Melbourne I worked at a prison. The prison did not take too kindly to my suggestions of increased enrichment programs. In May of 2021 I had the opportunity to work with Zoos Victoria’s and DELWP as a wildlife officer on a short-term contract. After the contract had ended, I obtained a position as Lead Animal Keeper at Somers School Camp as the Lead Animal Keeper. At Somers School Camp, we are uniquely positioned to instil and develop passion for the environment in young Australians.

#### What is your favourite animal, and why?

I really cannot pick a favourite animal as cliché as that may sound I have individual animals I have worked with that are my favourites and that is just purely based on their unique set of quirky qualities. Firstly, I really enjoyed working with a Chimpanzee named Cassius. Without Cassius’s calm, friendly and welcoming nature the chimp troop at Rockhampton wouldn’t be what it is today. Miss B a female southern cassowary and her ability to hold herself with such confidence means she makes the list. Vikki the freshwater crocodile was another favourite she was fiercely protective and always keen to run you out of her enclosure. I worked with her for close to 10 years and in that time she was always ready to jump into action.

If I did have to pick a favourite species though, I am going to have to go with the humble Lord Howe Island Stick Insect. I have never worked with this species but I am captivated by their resilience I think they have an amazing story of survival.

#### What is your favourite thing about Somers School Camp?

My favourite thing about Somers School Camp is our ability to spark passion for the environment and wildlife in young people. We are at the forefront of Environmental Education. I can remember when I was a child and the experiences that drove my passion and to be able to do that for someone else is amazing.



### **What changes or improvements would you like to see in the future of zookeeping?**

I would like to see the focus move away from just having singular species in enclosures but focus on developing displays that incorporates the ecosystem as a whole. Where possible that is.

### **What is your greatest animal achievement thus far?**

I think one of my proudest moments was getting the opportunity to trial some training techniques on our salt-water crocodile and then realising it was working. I then presented my experience at the GAP training conference that was held in Rockhampton. It was good to be able to highlight that training, and conditioning is not just for mammals all species benefit from it.

### **What is your most memorable experience with wildlife? (Animals in the wild)**

One of my most memorable experiences would have to be in Vietnam seeing Delacours Langurs in the wild. To be able to see an animal where there is so few left in the wild is something quite special and it really hits home about the struggles that endangered animals have.

### **What is your most embarrassing zoo moment?**

I have two embarrassing moments one of them a major stuff up. The major stuff up was early in my zoo career. The cassowaries had just been moved into their new enclosure. I had locked the cassowary out put down the food walked out and let the cassowary in to eat its food while I cleaned the enclosure. I locked the slide behind it and turned around to have the said cassowary breathing down my neck. I had not secured the keeper access gate. I was about to call for assistance then I thought to myself you know what it is pretty much a big chicken (I was also petrified of losing my job). I picked up the confidence, rounded the cassowary back into his lock off, and locked him in. Luckily, the cassowary was as nervous as I was and fell for my confidence bluff.

The second moment was when I was preparing to take up all the food for our bird aviaries. The food was prepared the previous day and takes about 2 hours to get ready. Upon adding the final touches, I loaded the trolley with all the food and proceeded to move out the door and as I made a sharp turn the whole trolley flipped and all the food scattered on the ground in the dirt, in front of everyone to see. As you can imagine laughter followed and the moment was immortalised on camera. (below)



## Meet the ASZK Committee

*Last edition we met some of the ASZK committee - this edition will introduce you to the rest of the committee members*

### Jo Walker

I have worked in the animal industry for over forty years. Prior to becoming a Zoo Keeper, I spent several years Vet nursing, volunteering for Wires and also in hospitality. I have now worked at Taronga Zoo for twenty-five years this September. I have worked in several sections of the Zoo including Carnivores and Australian Mammals. As well as Zookeeping, I currently work on the Roar and Snore plus Keeper for a day adult programs.



I discovered my real passion for the ocean environment, when I transferred to Marine mammals. I soon discovered how much I enjoyed working, plus training, the different species of Seals including Leopard Seals, Fur Seals and Sea Lions. I love training the animals for husbandry. It is so essential that they have the opportunity to participate in their own health checks.

Over the many years Penguins have become my true love and focus. I have been involved for many years in the successful breeding program for little Penguins. I was involved in the Little Penguin Recovery program around the Sydney region. I travelled to New Zealand to participate in the Tawaki Research Project for the Fiordland Crested Penguins at Milford Sound. I have attended and presented at Conferences in Australia and overseas, including International Penguin Conferences, ICZ Conferences, Enrichment Conferences, ABMA Conference, ASZK Conferences plus several Animal Training Conferences. It has been my life's work to travel around the world to discover every single Penguin species in the wild. I am so close with only one to go.

I decided to become a committee member because I like people. I enjoy meeting and helping them as well. Conferences are the best way to share our knowledge and passion for what we do in our institutions. It is a wonderful way to connect, encourage and inspire.

### Jo Thomas, Aotearoa representative

Jo has been working within animal care for 32 years and within zoos for 20 years. Jo is currently the Animal Care Manager at Wellington Zoo Trust with her amazing team of 43 staff. Jo has worked with all taxa within her zoo career but specialised in Carnivores and Primates very early on, which then led to Jo specialising even further in Great Apes and then specifically Chimpanzees. Jo has been privileged to work with several different communities of chimps within human care and within the wild. Jo's passion is chimpanzee politics and culture. One of Jo's biggest highlights in her career was leading the integration and introduction of two groups of chimpanzees to become one community of 22.



### David Kelly

Till recently worked as a Zookeeper at Alice Springs Desert Park since 2017 till recently and is now based in Cairns working for the Rainforestation Nature Park.



Whilst working at Alice Springs I was one of the bird trainers and presenters for the bird show at the park, this was my first time working in Falconry but I have had animal training experience in the past working with both seals and primates.

I've been in the industry for about 10 years and worked at Melbourne Aquarium, Werribee Open Range Zoo and Melbourne Zoo before moving to Alice Springs then Cairns.

I am genuinely interested in all different areas of keeping and have worked with a broad range of species as a result. I've always said to managers that if I find an area I don't enjoy I'll let them know but everything has been great so far! Each species have their own quirks and interesting traits to learn, as well as (sometimes hugely) different keeping techniques.

Married with an nearly 2 years old son we are enjoying life in Queensland and looking forward to the ASZK Conference. I am part of the photo comp organising committee.



## Melvin Nathan

I work on the Ectotherm Life Sciences Precinct at Melbourne Zoo, Zoos Victoria. I've specialised in Invertebrates over my career and have aspired to be where I am - to work with Invertebrate Conservation Programs. I am lucky enough to be part of the Lord Howe Island Stick Insect (LHISI) program here at the zoo, working in conjunction with the Lord Howe Island Board and the Rodent Eradication Program. In short, this species have gone from 80 years of extinction on LHI, to their rediscovery on Balls Pyramid, then into captive management and research via recovery program at Melbourne Zoo, and hopefully soon, reintroduction back to their World Heritage paradise home on LHI. One of the best parts of my job, is to give a voice to the little guys and tell their story and the important ecological role they play. It is believed that the LHISIs will most likely bring life back onto the island by helping to stabilise the bird life and maybe even benefit the reintroduction of other extinct bird species to the island, just by being restored on the bottom of the food chain.

One of the other focuses in my career, is to help zookeepers and the broader zookeeping community network with each other in order to share valuable learnings and skills with each other. I was inspired to become an ASZK member after I attended the Adelaide Conference where the ASZK celebrated its 40 years and what an amazing conference that was! As a result, I joined the ASZK Committee, where I helped with Social Media, aided in the organisation of the Husbandry Manuals on the new Website and now share the Fundraising Coordinator role with Karen James, where I mainly focus on the t-shirt design and organisation, and support Karen where needed. I look forward to meeting many of you at some point, to learn from you and hear your stories too, perhaps over a beer or two or three...



## Sam Herman

My name is Sam, I'm a reptile keeper based in Sydney and I'm one of the new ASZK general committee members. My zookeeping career started as a volunteer at both Featherdale Wildlife Park and Taronga Zoo in Sydney. Since then, (and learning a lot along the way) I have worked at Featherdale casually across the bird, mammal and reptile divisions before permanently as the reptile keeper for a number of years.

I have recently taken up a new opportunity as a reptile keeper at the Australian reptile park working with an inspiring team and diverse collection of herpetofauna. A big love of mine is varanids or monitor lizards and was even fortunate enough to attend the komodo/large varanid conference in Alice Springs, back in late 2018. I am also extremely passionate about the role zoos play in the conservation of endangered native species here in Australia and am lucky enough to be working with some important projects at ARP!



## Richard Roswell

Rich has worked in Zoos for over 25 years and has been a member of ASZK since the early 90s. Having worked in a variety of positions in different institutions around the world has shown the benefits of the network that ASZK provides in linking keepers from different countries, his professional focus has been mammals and is really enjoying being back at Zoos Vic at WORZ.



## Simon Husher

I have recently finished working as the Senior Keeper of Carnivores at Sydney Zoo in October 2021 and currently taking time to renovate our home while soon pursuing alternative career options in conservation and welfare. Since changing careers from running my own business as a Floor and Wall Tiler to zookeeping, I have been fortunate to follow my passion for conservation, welfare, and wildlife by working across a range of world class institutions, everything from



private, to open range, to city based zoological institutions that include Taronga Western Plains Zoo, Perth Zoo, Australia Zoo, Oakvale Wildlife Park, Blackbutt Reserve and then Sydney Zoo. The extent of my captive knowledge and experience stirred me to understand more about animal behaviour and their plight in the wild, to care for them better and to better represent every individual. This drive took me to Africa to train and work as a Professional Field Guide for a year and as an Assistant Manager of Makumu Private Game Lodge, this turned to be an invaluable experience. My highlights have been working with River hippos at TWPZ, direct focus on conservation and Sumatran Tiger behaviour as a handler at Australia Zoo, being surrounded by enormous herds of elephants in the moonlight in Africa, being part of building Sydney Zoo with our amazing team and sharing the passion for conservation and wildlife with everyone I work with and meet. This is my second time as a committee member on the ASZK and I have recently finished working with David Kelly on the ASZK Photography Competition.

## • ASZK • NEW MEMBERS

*The ASZK Committee  
would like to  
welcome the following  
new members*

### FULL MEMBERS

REBEKAH AUSTIN  
National Zoo and Aquarium

CHRISTOPHER CORNOCK-ROSS  
Melbourne Zoo

JESSE SAOFIA  
Melbourne Zoo

BRADLEY TINDALE  
Ranger Red's Zoo

REBECCA SMITH  
Gumbuya WorldB

SHONETLLE LORENZO  
National Zoo and Aquarium

BENJAMIN GRAY  
Ballarat Wildlife Park

HOLLY ADAM  
Wellington Zoo

BEC LYNCH  
Wildlife Habitat

CHRISTINA NICOLAS  
Taronga Zoo

RENEE MILES  
Wildlife Habitat

KATRINA KRYGGER  
SeaWorldt

LAUREN PENDRY  
Taronga Zoo

### ASSOCIATE MEMBERS

ALICIA O'BRIEN



## • ASZK • MEMBERSHIP STATISTICS

**161** FULL MEMBERS

**0** FULL PARTNERS  
MEMBERS

**20** ASSOCIATE  
MEMBERS

**0** ASSOCIATE  
PARTNERS

**25** RECIPROCAL

**10** CORPORATE

**9** LIFE MEMBERS

**0** OVERSEAS

**1** OVERSEAS  
CORPORATE

**TOTAL 206**





## PRIAM PSITTACULTURE CENTRE

“This year Priam Psittaculture Centre (PPC) is ushering in what may one day be called the year of the Pseudomys. Pseudomys refers to a genus of mice endemic to Australia and New Guinea. They have a special place in Australia’s fauna, being one of the few taxons of non-marsupial mammals to have colonised Australia prior to human arrival. The genus comprises 21 extant species, two of which are currently held at PPC. The species being the Smoky Mouse (*Pseudomys fumeus*) and the New Holland Mouse (*Pseudomys novaehollandiae*).

To house this abundance of native mammals, PPC has eight dedicated mouse buildings. Comprising multiple quarantine and breeding rooms, as well as a specially designed acclimatisation building opened by the Federal Minister for the Environment in 2018. Six newly constructed research and breeding rooms form the main hub of PPC’s Pseudomys programs. The six new rooms have been designed for the specific task of housing, pairing and successfully breeding Pseudomys, with ample shelving space

for tubs, as well as cabinetry, hygiene stations, temperature controls, and monitoring devices.

These programs aim to generate a secure breeding and insurance population for both species. This will reduce the pressure of conserving these species in the wild, and also increase the number of individuals which can be released into new locations, or previously inhabited locations. The programs for both the Smoky Mice and the New Holland Mice have been funded with the support of the NSW Department of Planning, Industry, and Environment through its Saving our Species program. The rooms were built with the support of the Federal Department of Agriculture, Water and the Environment’s Bushfire Recovery Fund.

The programs are also aided by the various practices employed at PPC. In order to minimise any disturbances, PPC staff follow specific procedural guidelines. For instance, all interactions involved with the servicing of the mice are done in numerical order. The mice are also fed and checked at specific times of day. This helps the

mice fall into routines, so that when someone enters one of their rooms, and follows the established routine they experience minimal intrusion. These routine practices also included talking rarely, or in quiet voices when required, and also not turning the rooms' lights on where possible.

The establishment and adherence to routines is something PPC does across the board, not just with Pseudomys. All animals kept at PPC are cared for following routines and guidelines finessed over years to ensure best practice. And for all species, it reduces the potential stress caused by people entering an animal's area. PPC is home to both Pseudomys and Parrots, both of which are prey animals, so their typical response to people is to either flee or hide. In enclosed environments, prey animals are unable to avoid their predators, which can lead to extreme panic and stress behaviours. This is especially true for parent reared or wild caught animals; both kinds are kept at PPC.

To avoid this stress and panic, PPC has carefully curated its procedures to minimise the disturbance caused by people performing necessary tasks in rooms and aviaries. This has been done by sticking to routines, not looking directly at individual animals for extended periods of time, announcing ones presence before suddenly entering their space, only entering an animals space when necessary.

These routines also reduce the spread of contaminants between aviaries, rooms, and individuals. For instance when hand-rearing birds, the practice is to always feed from youngest to oldest, as the youngest birds have the least developed immune systems. The physical separation of aviaries and rooms also reduces the risk of potential pathogen spread.

As PPC continues to grow and incorporate new species and programs, the maintenance of routines will be kept as a central priority, ensuring both the minimisation of stress and disease transfer.“

## CENTRAL COAST ZOO

Well Central Coast Zoo has had a busy 12 months. We are a new zoo operating on the Central Coast in the grounds of Amazement Farm & Fun Park. Under the same parent company as Amazement, we have been setting ourselves up as an individual identity with all the administration that goes along with it. Starting a zoo from scratch is a lot of work but we have had a great team of people come on board and the future looks bright.

In the last six months, we have welcomed six African Lions to the zoo. The pride was the last performing circus lions in Australia that had to be rehomed after covid and insurance issues forced their early retirement. The six animals have settled in beautifully in their brand new enclosure. We also were excited to welcome the arrival of three African Servals who now call Central Coast Zoo home. As well as a pair of Fennec Fox. Unfortunately, we lost our female fennec due to age related issues and are now looking to acquire more animals via import.

We also welcomed a number of new additions to our reptile collection including tortoise, iguana and boa species. Each welcomed species has meant a new enclosure so a number of formally empty paddocks are now brimming with new finished enclosures but we are continuing to build more. Including work on a number of primate enclosures. The zoos exotic waterfowl collection has also continued to grow with Mute Swans, Canada Geese, Ruddy Shelducks and a number of other species arriving at the zoo.

The zoo has been successful in adding to our Barbary Sheep population with a number of successful births. Our Blackbuck Antelope herd has also had a number of successful births which included one that was found rejected and cold one morning which the keepers took on and have successfully hand-raised. Our Meerkats have continued to surpass our expectations and we have welcomed a number of healthy litters in the past 9 months. We look forward to the next 12months as being as busy as the last with plans to acquire additional species such as Capybara and various primate species and also to begin creating an outreach educational program with our partners. We hope to keep updating the industry as our progress continues.

**Jeni Brown**



## SYMBIO WILDLIFE PARK

Through the wake of our second lockdown due to the Covid-19 pandemic, the team at Symbio Wildlife Park put their heads down and worked harder than ever. Now, at the beginning of 2022, the future is looking bigger and brighter, with so many exciting new things ahead.

From our brand-new Tasmanian Devil and Echidna exhibits, various other exhibit and park upgrades, a new kiosk in the making, our growing conservation areas, training procedures, Koala breeding and many more; a couple of big achievements really stood out amongst our small dynamic team.

### Carnivores

On the 12th of November 2020, Symbio welcomed the arrival of two young female Cheetahs ‘Zola and Adayzay’ from Taronga Western Plains Zoo at Dubbo. Over the following year, the Carnivore Team have been working closely with the young sisters, to condition them for blood collection from their tails. After having lost Big Cats in the past due to renal failure, we wanted to be able to keep a close eye on their bloods and kidney function as regularly as possible, to ensure their positive health and wellbeing.

Being a smaller facility, this type of procedure was new to us, but we were really excited to get started. The team had previously been involved in hand injection training with our Sumatran Tigers and Cheetahs, so we felt confident in putting a similar procedure in place. With the help and advice from some amazing Keepers at Dubbo Zoo, I compiled an SOP and we got started.

Zola and Adayzay were not hand raised Cheetahs so their temperaments can be quite reserved when approaching Keepers. Zola in particular had been quiet from a young age so we knew that she may take a little longer to warm up. The girls are both incredibly food motivated which worked very well in our favour.

The first thing we needed to do was design a walkway system for the girls to enter, so that we could approach them from the front and side. It needed to be wide enough for them to fit comfortably but be unable to turn around. It was designed to permanently attach onto the slide from their Den to their off-exhibit yard, this way they would walk through it frequently and be able to back out whenever they wanted to. The girls had previously been hand injection trained at Dubbo Zoo, so once they were comfortable with entering the walkway, the training began.



Figure 1. The walkway system extending from Den 1 into Yard 1

The initial steps required a desensitization program for each and every step, including the keepers approaching from the side, the equipment, touching the tail and then pulling it through the slide, the clippers and then the needle. We began training with only two keepers but added a third throughout the process to be the “vet”.

Training was initially done daily. The Cheetah girls enjoyed their training sessions so much, to the point that Adayzay would not exit the walkway after her session. We were able to build up trust with the girls and there was a clear difference in training success if any other keepers came to assist, with the girls being less co-operative with unfamiliar people.



Figure 2. Elizabeth and Julie doing their first training session with Adayzay in the walkway

This ended up being a bit tricky as when our vet would come in once a month to do the blood collection, Zola in particular would not cooperate with him. This led to



the carnivore team learning how to do the blood draws ourselves.

As we had watched our vet do the procedure a few times, it didn't take long for us to be able to successfully do it on our own. This was much less stressful on the Cheetah girls, the keepers, and an incredible learning experience for the carnivore team. We could now get their bloods at any opportunity, without having to call in the vet.

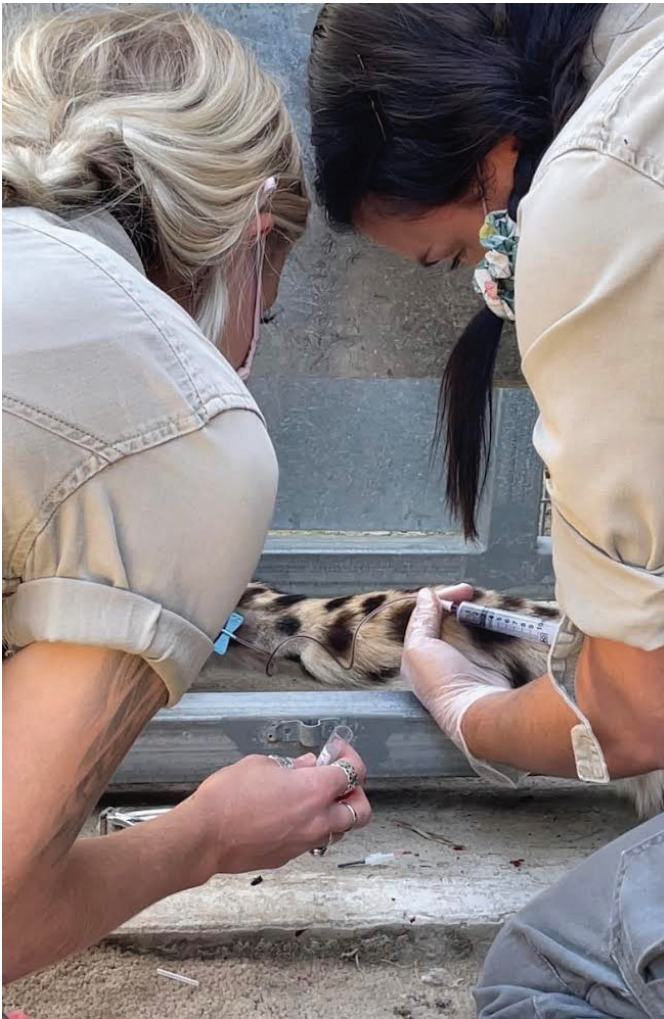


Figure 3. Elizabeth and Julie drawing blood from Zola's tail

We are incredibly proud of Zola and Adayzay and our team and we hope that this will assist in us being able to flag any health concerns as early as possible.

**Elizabeth Beckwith**

## Natives

In August 2021, our latest animal habitat renovations (being the Tasmanian Devil and Echidna Exhibits) were awarded recognition of outstanding achievement in animal housing and exhibit design by the Zoo and Aquarium Association. Both species have since settled into their new homes, with water feature additions to come this year!

Usually through cooler periods our Echidnas would be spending more time in the early morning resting, more than often underground, however the aspect of the newly built exhibit allowed for more sunning opportunities for longer periods throughout the day. We catch both Leo and Rex soaking up the first rays most mornings. The added bonus of additional space for our Echidnas allows for more foraging and exploring particularly at feed times and for an array of enrichment usage

The exhibit creates a more intimate experience for guests for general viewing and during certain encounters, making them feel quite immersed in flora whilst enjoying the company of our spikey residents!



Figure 4. Echidna exhibit

Our resident Tasmanian Devil Ursus enjoys a cheeky sunbake as we often catch him outstretched in any aspect of sun in the morning and afternoon. Our little sun boy!

This exhibit is anything short of breath taking as you walk towards it on a misty morning in Helensburgh. The careful landscaping and the visual effect of the log cabin creates a perfect Tasmanian atmosphere. Ursus loves to investigate his territory as he is quite a curious and confident Devil. He has been a little heavy handed with a few of the ferns however this only adds to his activity. There are multiple



natural dens formed from log hollows and rock that he loves to create his nest of fern amongst, while still being very visible for guests to see him. The addition of a creek bed through the middle of this enclosure will be the cherry on top for Ursus, as like any Devil he loves a good soak!

The off-display areas for both Tasmanian Devil and Echidna exhibit has not only made daily maintenance more efficient, larger scale jobs are also much more achievable as Ursus is more than happy to use the slide to access the inside den space.

The recent reclassification of Koalas from vulnerable to endangered was always going to be heartbreaking, even if it was expected. 2021 was unfortunately not the year of success for our Koala Breeding Program however, 2022 is shaping up to be an exciting one!

We have two confirmed pouch young to experienced dam Grace and second time mother Kirra. We've had successful pairings with two other females and are keeping close eyes on all four mums to be! Watch this space!

With successful breeding comes hungry mouths and Symbio have been hard at work throughout 2021 and into 2022 planning and planting Eucalypt plantations. Last year we planted 1,750 trees and we aim to try to source additional plantations in 2022 and plant almost 5,000 trees. Not only will this supply our Koala Breeding program with their vital food source the trees once mature will on average be absorbing 21kg of CO2 each year.

## Elizabeth Florance

### Conservation

In January of 2021, Symbio Wildlife Park was granted the opportunity to build and upgrade a brand-new Conservation Building by the Federal Government. After a lot of dedication and hard work from our Keepers and Symbio's management team, the plans were approved, and building started almost straight away. Hard at work, the land was cleared, and the structures were put in place. Symbio's vision was coming to life.

We were due to finish by December 2021 but the unfortunate second wave of COVID in June put our plans on hold. Over the lockdown period we were lucky to get the grant extended and by October 2021 the construction re-commenced. We were back on track and the building started to come together.



Figure 5. Crystal in Green and Gold Bell Frog Conservation building

With Symbio working closely on two conservation programs since 2016; The Bellinger River Snapping Turtles and Green and Golden Bell Frog Program, our facility was ready to start growing, welcoming some new species on board.

This year our Bellinger River Turtles are coming up to maturity. With the possible signs of breeding this year, the Bellinger River Turtles will have their own dedicated breeding space in the new building.

With part of the new facility being held as a quarantine building, we were ready to start acquiring the species selected. In January this year we were lucky to begin acquiring Stuttering Frogs, which are the first of the conservation species to be inside the new Facility.

With Amphibians being a big part of our conservation plans we have dedicated three rooms across two buildings to house and breed. This will be sectioned off for the Stuttering Frogs. From raising tadpoles in one room; raising metamorphs in another and then the housing and breeding of our adult Stuttering's in the third.



Figure 6. Green and Gold Bell Frogs in amplexus

All of our breed for release conservation programs are not accessible to the general public so we are excited to include a public viewing area as a main focal point for visitor education and the plight of these species.

By late 2022 our building will be ready to welcome Manning River Turtles. The facility will have the space to house not only the adult Mannings but room for rearing and the housing of juvenile Manning River Turtles. The captive facility will be very similar to our current Bellinger River Turtle area. The large space has been built and is now ready for the ponds to arrive.

With the building coming together, we have installed a state-of-the-art building management system. The BMS is a very intricate smart system that allows us to keep an eye on temperature and humidity levels, with alarm systems and photo sensors in place. The space also has multiple data capabilities.

The new building is the beginning of a new era of conservation here at Symbio Wildlife Park, working closely with the NSW Government and other institutions to help maintain a captive population for the future release of tadpoles and turtles in the wild. Symbio will continue to work towards the preservation of these species and is excited with the expansion of our conservation programs.

**Crystal Hutchinson**

## MONARTO SAFARI PARK

### *Ungulates*

#### *Black Rhino Facility Expansion*

MSP hold two black rhino bulls, Induna and Sentwali, who were imported from TWPZ in 2007. Since their arrival, they have existed in our “old” moated elephant exhibit, with access into some small yards overnight. As these males have matured, we have been unable to hold them together due to aggression issues, meaning we have had to rotate them through the exhibit and lockaway yards every 24 hours.

A couple of years ago MSP received a very generous sponsorship, to dramatically expand our black rhino space and holding options. The plan was to construct several new, 2-hectare habitats, the first of which was recently completed by the MSP projects team. Last week we were able to finally release our black rhino into it, and Sentwali was the lucky candidate to have the first run! He walked



through his new gates without any problem into his new habitat, and seeing how enriching and stimulating it was for him to explore a new area was absolutely wonderful. This was the first time they had been provided with any new ground for almost 15 years, and to say he was “active”, would be a gross understatement. He, galloped, cantered, sprayed, vocalised, kicked up a lot of dust, and certainly made the most of his opportunity.

This new black rhino habitat has been a tremendous new addition from an animal welfare perspective, and will also include a new bus stop, walking track and lookout to enable visitors to view the animals in both areas. There also plans to build several new black rhino habitats of a similar size, which will allow MSP to hold a range of combinations, including introducing females. So hopefully in the not-too-distant future we will see black rhino calves being born and raised at MSP!

**Mark Mills**

#### *Primates*

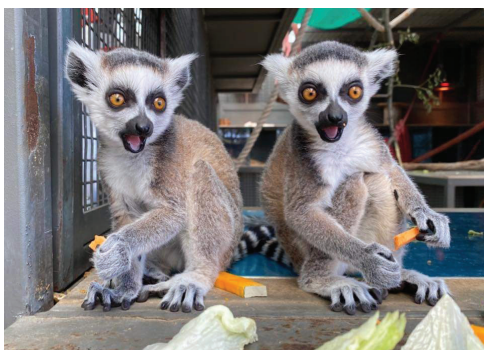
Celebrations were in full swing on Saturday the 19th of February at the Chimpanzee exhibit for Hope’s 3rd birthday (pictured opposite). The team were very excited to receive a video message from Dr Jane Goodall herself to wish little Hope a very happy birthday and encourage members of the public to come visit Hope and her troop. Hope appears to hold a special place in Dr Goodall’s heart after she was given the honour of naming the infant chimp during a visit to Monarto Safari Park back in 2019. Hope was the first infant born to her mother Hannah. Hannah is a hands-on “fun” mother often seen tickling and throwing Hope in the air in play. When Hannah is resting, Hope is seen playing with troop mates Enzi (6) and Zola (2).





Galatea, one of the female chimpanzees in our troop, is turning 23 this month and progressing well through the final stages of her pregnancy. We are now witnessing her tiredness growing along with her belly. She appears eager to take extra drinks of water and tea from the keepers when available. Keepers are already watching for any changes in behaviour through nest making and restlessness that may indicate the onset of labour. She is now in her final trimester and we are expecting her to give birth in late March. This will be Galatea's first infant, having witnessed and played the role of Aunt to 5 other infants in the troop. The team are feeling confident that she will soon find her stride in motherhood.

It has been busy times on our new Ring-tailed Lemur section with the arrival of seven males from Hamilton Zoo, New Zealand, in December 2021. Since their arrival, our two original males have been introduced to the Hamilton



Zoo group successfully. We will soon be approaching the next breeding season in March. One of our males will be transferred to our female group in the hope that they will breed again after the successful arrival of three pups last September. The three pups in our female group have been growing fast. They are showing independence, spending more time away from their mothers, practicing climbing and dangling from branches. Construction of the walk-through Lemur exhibit in the new Wild Africa section is moving along, with the female troop being offered daily access to the massive exhibit space most days.

Exciting times ahead on Primates at Monarto Safari Park. Watch this space

**Amy Nelson**

## TARONGA ZOO *Bird Department*

### *Plains Wanderers*

One of our breeding pairs have successfully hatched four eggs earlier this year. The chicks are now four weeks old and are looking healthy and very active. Unfortunately, we have lost two females over the past couple of months due to age related issues. These birds were a part of the original collection from the wild back in 2015 and 2016. Hence, the age of these two birds is at least 6-7 years old. This gives us the first indication of the lifespan of this species in captivity. In happier news, the preparations for the first Plains Wanderer release in NSW are well under way with the birds to be released in mid-March.

### *Regent Honeyeaters*

In October, Taronga was a part of a release of 58 Regent Honeyeaters back into the wild. Some of these birds were fitted with radio transmitters and, in December 2021 and February this year, three birds were fitted with satellite transmitters. These new transmitters offer a number of advantages over the radio transmitters: 1) they are solar powered giving them a much longer lifespan than the radio transmitters and, 2) they can be monitored remotely.

Hopefully, the new transmitters will offer us new information about the movements of this species across the year. We have had some great success with breeding our Regent Honeyeaters this season with 20 birds bred from five breeding pairs.

## White-rumped Shama

Last year, we paired two pairs of white-rumped Shammas. The pairs responded extremely well, and each pair successfully raised a clutch of 4 chicks each. Later in the season, they successfully raised another clutch each, one clutch with three chicks and another clutch with four. This result is tremendous news for us since it is the first time that we have bred this species at Taronga.

Adam Koboroff

## Taronga Zoo Free Flight Birds Department

Free Flight Birds has been sharing the progress of our juvenile Red-tailed Cockatoos, Quintinia and Monotoca. Last submission spoke of their initial foray into free-flight at Athol Hall, a large outdoor function area near Taronga's Sydney site. Since then, both birds have graduated to flying on site. We progressed to greater distances, increased their flight gradients, and then started to place them in trees and "run away" from them. Quintin and Monotoca would then follow and loop around us until offered a hand to station. When content with their skill set, we returned to the Free Flight amphitheatre and commenced their routine. Quintin and Monotoca are to fly to an entry station, fly over to a guest [with a trainer] and then fly across the seated area to a second guest [with another trainer]. They are to fly between these guests multiple times, prior to exiting. To reduce the likelihood of either bird displacing the other, each was trained to only land on a specific hand. Monotoca is only positively reinforced for landing on a guests' left hand, and Quintin the right. Initially we used differential reinforcement; if they landed on the "wrong" hand, they were provided with only one sunflower seed, rather than three for the desirable choice. This ensured they were reinforced for committing to the flight, but conveyed greater value was placed on landing on their specified hand. We then faded out the single seed reinforcer for an undesirable choice when behaviour was being expressed consistently. The next stage was approximating towards landing on guests. We started with non-uniformed Taronga staff in more conservative clothing, and gradually increased the range of clothing styles, patterns, etc. Quintin and Monotoca were given a break over the school holidays [worked outside of Free Flight Birds] due to the large crowd sizes, but have been successfully flying in our presentations Monday to Friday; with smaller audience numbers. We're pleased with their progress and the conservation message that they will help to convey, that being, habitat restoration.

We also have been training a juvenile, Black Kite, named

"Nebula" (pictured below), since late last year. Nebula is on loan from Feathered Friends, and will hopefully have the opportunity to breed and have offspring in the years to come. Nebula experienced their very first free flight at Athol Hall this morning [the morning of writing this], and is also coming along well. Our hope is to introduce them to Free Flight Birds, flying them with our mature Black Kite, "Stellar". In time, we hope to fly a larger flock together.



## MELBOURNE ZOO Ectotherms

Following a very successful breeding season, we welcomed multiple new neonates into the Reptile Department. Over the last few months, the Reptile team brought through 18 Double Crested Basilisk (*Basiliscus plumifrons*), 6 Red Barred Dragon (*Ctenophorus vadrappa*), 93 Lined Earless Dragon (*Tympanocryptis lineata pinguicolla*), 6 Eastern Diamondback Rattlesnake (*Crotalus adamanteus*), and another breeding of Crucifix Toad (*Notaden bennettii*). In a first for Melbourne Zoo, and the first successful breeding in the region in about ten years, one Reticulated Python (*Malayopython reticulatus*) was also born.

Mid-2021 also saw the importation of eight new *Geochelone gigantea* (Aldabra Giant Tortoise) to increase our herd dynamics at Melbourne Zoo (pictured right)





Our newly created crocodile crate has seen multiple uses now with consistent training sessions. Our resident Philippine Crocodile (*Crocodylus mindorensis*) has a well-established behavior of recall between his two ponds, his recall training with entry to the “Croc Crate” (pictured below) being implemented as a new approximation into his training plan



After an incredibly prosperous breeding season of one of our many Fighting Extinction programs, 876 Baw Baw Frog (*Philoria frosti*) tadpoles were released into the mountains in early December. There has also been success with our newest Fighting Extinction species on the department - the Giant Burrowing Frog (*Heleioporus australiacus*) - with our tadpoles metamorphosing and growing rapidly. Works on our three new amphibian bio-secure facilities are nearing completion with fit-out to begin soon, which will see our capacity for breeding both currently housed species and future species to increase dramatically.

## Jayden White

There have been quite a few exciting developments with our Lord Howe Island Stick Insect – LHISI (*Dryococelus australis*) Program. We’ve hatched our 4th generation from our Vanessa generation, a sole female collected back in 2017 which injected valuable genetics into our original population from 2003 which only had two breeding pairs. We currently have 3 different populations: original 2003 population (Adam & Eve), the new 2017 population (Vanessa) and a hybrid population (2017 with 2003 animals). The Vanessa population is very valuable as these animals are the one potentially destined to one day be released back into the wild. One of our Melbourne Zoo Vets, Nicholas Doidge, has developed a frass test to screen for disease in LHISI. This is such a game changer and a first of its kind and will be an integral part of insect husbandry and healthcare. This will be an important part of releasing disease free animals back into the wild.

Furthermore, we have been part of a genetic research trial for the past couple of years, as we have had LHISI in captivity for about 19 years now (14 years of breeding from founders, five years now of Vanessa and five years of hybrid). We have been working with our Vets, Zoos Victoria’s Wildlife, Conservation & Science Department (WCS) and geneticists from Australian National University (ANU) to set up trials and collect data. A few weeks ago we had ANU geneticist Sasha Mikheyev pick up the last of the samples and dissect out sperm from some of the males. We can’t wait to hear back regarding the results, which will help us positively steer the management of our populations for a better future for these Critically Endangered phasmids.

We have welcomed also two new recruits to the Ectotherm department, both specialising on the Invertebrate side of things, Jesse Saofia and Meah Velik-Lord. Meah has been doing some rearing trials with our Giant Water Spider (*Megadolomedes sp.*) spiderlings and is having some great success with both communal and individual rearing.





We've since had more breeding occur and multiple eggs sacs hatch (above) with great survival outcomes, this is such a great achievement for the captive husbandry of this species!

**Melvin Nathan**

## *Trail of the Elephants*

So many exciting things are happening here on Trail of the Elephants at Melbourne Zoo. After much anticipation, we welcomed bull Elephant Luk Chai from Taronga Western Plains Zoo in Dubbo in December 2020. Luk Chai has transitioned smoothly into his new habitat.



After some carefully-planned introductions of Luk Chai to the females, we are delighted to be expecting three calves in late 2022. Encouraging a natural breeding herd assists with herd cohesion and social dynamics, as well as cow physiology, which in turn supports our Elephant Management Philosophy. The three pregnant cows are healthy and tracking as expected. When the time arrives, Dokkoon and Num Oi (who both are expecting their third labour and birth) and other females Mek Kapah and Kulab, will be able to support first-time mother Mali, just as older elephants would do in the wild.

Luk Chai has also become a primary mentor for our younger bull Man Jai. Bull management within a captive environment is just as important and complex as managing a herd. We try to replicate natural biology by simulating individual bull encounters and providing the opportunity for the bulls to socialise. This provides essential life skill development for Man Jai, as the best way to learn how to be a bull is by learning from an older bull elephant. We couldn't be happier with how Luk Chai has settled into the herd. He really is a key component in supporting the welfare needs of all our Elephants.

Adding to this, we have been working with many stakeholders in the development of the new Elephant habitat site at Werribee Open Range Zoo, with the move of our entire herd due in 2024. After a lot of deliberation, the physical changes have begun to commence at Melbourne Zoo and you will start to see areas around their current habitat change in preparation for the arrival of our Elephants' transportation crates. Over the coming years we will be training Melbourne Zoo's adult Elephants and future calves in these new areas, giving them the choice and control to explore these containers as they will be a permanent fixture to their current habitat. With the

assistance and dedicated work provided by our trainers, the team will have a clear plan on how to softly approach the individual needs of each Elephant, and work with their life history to establish a strong foundation for a successful move to their 22-hectare habitat at Werribee Open Range Zoo with minimal impacts.

There is never a dull moment on Trail.

**Natalie Manwaring**



## Wild Sea

In January our Penguin exhibit received a cool change (literally) with a brand-new misting system installed around the perimeter of the Fiordland Penguin (*Eudyptes pachyrhynchus*) and Little Penguin (*Eudyptula minor*) nest box areas. This is a massive win for the welfare of our penguins as during moulting season, when the Penguins spend significantly more time in the nest boxes, the misters automatically turn on when temperatures reach 27 degrees. This ensures the land area of the exhibit now remains within our temperature standard.



**Ashleigh Krievans**

## Carnivores & Ungulates

We call it our Sumatran Tiger Justified, Humane & Effective plan. Essentially, the J.H.E plan is an aspirational document, a management plan for our tigers that is based on nature and natural behavioural biology. It is innovative, creative and incorporates integrated technology within our tiger habitats. It is a plan that ensures thriving tigers in an urban zoo.

The Humane section of the JHE focuses on individual animal welfare and respect for animals. The section follows the format of David Mellor's 2020 Five Domains Model. Domain 4C focuses on Behaviour: interactions with other animals.

We all understand that tigers are largely solitary. But they are not asocial. Tigers communicate with conspecifics via marking fluid deposited on strategically located overhanging trees and other significant features on

well-worn paths within their territories. Sure, we swap bedding material between our two tigers Hutan and Indrah, however it would be unlikely that wild tigers would communicate with other tigers in this manner.

Our solution to allow for a more natural mode of communication and interaction between our two tigers was to install 'tiger appropriate' marking sites on each of our habitats. Both Hutan and Indrah each have two sets of 'marking panels' and 'marking poles' strategically positioned within their habitats that can be rotated between the two on a six-weekly schedule.

The behavioural response we have seen in both Hutan and Indrah after rotation was exactly as expected. They displayed knowledge behaviours, defence behaviours and occupancy behaviours, all of which can often be challenging to provide a solitary species in a zoo setting. Natural behavioural biology right there, nothing more, nothing less!

After the resulting behaviours between Indrah and Hutan, we thought to expand our in-house conspecific scent swapping program and create a regional program with other institutions that house Sumatran Tigers. The behavioural response from an unknown tiger would take conspecific interactions to the next level, all the while monitoring for prolonged stress-related behaviours. If your institution is interested in becoming involved, please get in touch: [mcounihan@zoo.org.au](mailto:mcounihan@zoo.org.au)

Could the animals under your care benefit from natural communication opportunities such as this?

**Monique Counihan**



# BACK 2 IT IN 22

## - CAIRNS -



CONSERVING OUR FUTURE