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A young giraffe is lying on the ground in a natural habitat, looking towards the camera. The giraffe has a brown and white spotted pattern. The background shows a dry, rocky landscape with some trees and a large fallen log.

# Annual Report 2016-17

**PASSION**

We inspire and influence by bringing pride, care and commitment to our work.

**INNOVATION**

We seek creative ways to achieve goals and turn ideas into reality by promoting a culture of learning and improving.

**RESPECT**

We respect individuals' values and encourage a culture of collaboration, diversity, listening and trust.

**EFFECTIVENESS**

We are accountable, focus on clearly defined goals and work as a team to turn words into action.

**ENGAGEMENT**

We create experiences and connections that make a positive difference.



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# Zoos SA Purpose and aspiration

Flamingo, Chile / Image credit: Adrian Mann

**Zoos SA is a long-established and successful organisation that is an integral part of South Australia; since Adelaide Zoo opened to the public in 1883, six generations of South Australians have passed through its gates. It is a conservation-based charity dedicated to biodiversity conservation with more than 46,000 members.**

## OUR PURPOSE

Is to connect people with nature and save species from extinction.

## OUR ASPIRATION

Is to lead and inspire conservation action to support global biodiversity.

## OUR BUSINESS

As set out in Zoos SA's Strategic Plan 2017-2022, the organisation has four primary goals and a series of broad strategies to achieve them. The Business Plan builds on this framework; the relationship between the Strategic Plan and Business Plan is shown below.

### STRATEGIC PLAN

#### GOAL 1

Connect people with nature: engage, inform and inspire people to act

5.1

#### GOAL 2

Save species from extinction: conservation, wildlife health and research

5.2

#### GOAL 3

Work in an ethical and sustainable manner, influencing others to follow our example

5.3

#### GOAL 4

Grow a sound and advancing organisation, applying an innovative business approach

5.4

### BUSINESS PLAN

Connect People with Nature

Save Species from Extinction

Work in an Ethical and Sustainable Manner

Grow a Sound and Advancing Organisation





Image credit: Nicole Miller

# President's Report

It gives me great pleasure to report that a record breaking 585,872 people visited Adelaide Zoo and Monarto Zoo in the 2016/17 financial year, the largest turnout in our 134 year history.

With almost 600,000 people visiting Adelaide and Monarto Zoo, we surpassed Zoos SA's previous attendance record when the Giant Pandas arrived in 2009/10.

It's exciting to know that so many people embarked on a wildlife journey at our zoos over the past year.

More than half a million visitors, plus more than 60,000 students, is a powerful catalyst for positive conservation change.

As a conservation charity, record visitors enables Zoos SA to connect more people with nature than ever before, which in turn funds our vital conservation and breeding programs to save species from extinction.

These fantastic results were thanks to a string of special animal births including Giraffe calves at Monarto Zoo, as well as an exciting calendar of events at both sites including the highly popular giant animatronic dinosaur exhibition, Dinosaurs Alive, at Adelaide Zoo.

In May, we celebrated another significant milestone, reaching a record 46,000 members.

Our membership base now represents almost 21,000 households across South Australia, a testament to the success of on-ground activities, our marketing efforts over the last financial year, and our commitment to building a sound business.

Few South Australian institutions ever record such numbers and we can all be very proud of this remarkable achievement.

Innovative projects like our Lions 360 experience at Monarto Zoo, which is currently being built, will allow us to continue building on this success.

These encouraging trends indicate future growth for the organisation over the coming years.

**In May, we celebrated another significant milestone, reaching a record 46,000 members.**

Importantly, this year, Zoos SA continued to deliver tangible outcomes in our work saving species from extinction, with many significant breeding successes and conservation milestones to reflect on.

I would like to extend my thanks to Elaine, the senior management team, and all staff and volunteers for delivering such positive results for the year and positioning our two zoos as world-leaders.

The hard work and dedication of staff and volunteers connects thousands of people with nature each year and helps secure a sustainable future for many species.

I also thank the board members for their dedication to Zoos SA over the past year and I look forward to the year ahead with great confidence.

**David Sanders**  
President

Giant Panda / Image credit Dan Schultz







# Chief Executive's Report

**Zoos SA delivered strong results both within our zoos and in the wild this financial year.**

Record visitation and membership achieved over the past 12 months enabled us to connect more people with nature than ever before and ultimately, continue our work as a conservation charity saving species from extinction.

And while we attracted more people through our gates, we also continued to focus on growing and developing our sites to meet the expectations of our visitors.

Over the past 12 months, we continued to deliver on projects outlined in our 20-year Master Plan, with significant work underway to complete our exciting Lions 360 experience at Monarto Zoo.

This project is all about reversing the traditional zoo experience, with visitors able to enter a tunnel and emerge in the heart of the lions' den surrounded by up to 11 African Lions.

I'm thrilled to say construction is on-track to be completed by the end of the year.

This project is just another way we are working to foster deeper connections between our visitors and our animals.

I'm pleased to report that in 2016-17, Zoos SA continued to deliver on our mission to lead and achieve long term conservation change, with our world-renowned breeding and conservation programs delivering impressive results both in our zoos and in the wild.

Over the past 12 months, Adelaide Zoo welcomed many new animals to the family, including a critically-endangered White-cheeked Gibbon baby, a Hamadryas Baboon baby and four critically endangered Western Swamp Tortoises.

At Monarto Zoo, we were thrilled to continue our work ensuring a future for Africa's most endangered big cat, with five Cheetah cubs born in March.

**We continued to deliver on projects outlined in our 20-year Master Plan, with significant work underway to complete our exciting Lions 360 experience at Monarto Zoo.**

View 1 / Lions 360 experience at Monarto Zoo

We also welcomed the 40th and 41st giraffe calves to be born at Monarto Zoo. We are proud to be the most successful giraffe breeding facility in Australasia.

2016-17 proved to be another successful breeding season for the Pygmy Blue-tongue Lizard, with 18 neonates hatching. Zoos SA is proud to be the only organisation breeding this rare lizard to build a vital insurance population.

We also continued our work saving species beyond our zoo gates, with the wild-release of three Adelaide Zoo-bred critically endangered Regent Honeyeaters, the wild release of 25 of South Australia's most endangered mammal, the Warru, from a Zoos SA-established population, and the release of one of Monarto Zoo's Tasmanian Devils at Stony Head in Tasmania.

We've also welcomed some exciting new species to our zoos, with Maned Wolves joining the Adelaide Zoo family and a family of African-crested Porcupines taking up residence at Monarto Zoo.

We experienced sadness this year with the loss of some iconic animals including Karta the Orangutan. We were touched by the outpouring of support from the South Australian community following her passing and are proud to have raised more than \$35,000 in Karta's honour to create a habitat guard tower in Sumatra to protect wild orangutans.

As I reflect on the successes of the past year, I am proud to say our results prove that good zoos are more relevant and vital in today's society than ever before.

My sincere thanks go to the board, our staff, volunteers and many supporters for their help in making 2016-17 another successful year.

I am very proud of our achievements this year and look forward to more conservation successes in the future.

**Elaine Bensted**  
Chief Executive

View 2 / Lions 360 experience at Monarto Zoo



# Board Members and Governance

In line with the rules of the society, Zoos SA is governed by a volunteer board with members donating their time and professional expertise. Board members are responsible for the performance of the incorporated association. The board draws on and applies relevant corporate governance principles and practices, has approved a charter and ensures conflicts of interest are considered at every meeting. Day-to-day management of the business is delegated by the board to the chief executive and senior management team, with quarterly performance reports provided to the board from the chief executive.

## ZOOS SA BOARD MEMBERS



### DAVID SANDERS

#### President

David Sanders is a partner in the Adelaide assurance practice, Ernst & Young and is a qualified chartered accountant and registered company auditor. David and his family have been members of the zoo for many years.



### JULIEANN RIEDSTRA

#### Vice President

Julieann is the Deputy Chief Executive, Resources of the Department for Education and Child Development. Julieann has more than 25 years experience in the South Australian public sector in finance, corporate services and infrastructure roles. Julieann has been a Life Member since 2008.



### ROD BUCHECKER

Rod is Chair of TEC 30 for The Executive Connection, the world's largest CEO network. He is a recognised executive mentor and business coach, specialising in leadership development and helping companies find the focus they need to succeed.



### GRAEME CROOK

From 1983-1986 Graeme was a keeper at Adelaide Zoo. Following, Graeme went on to gain over ten years experience with Animal Services at CSIRO Division of Human Nutrition, before moving into IT. As a zoologist, strategic thinker and R&D project manager, Graeme brings his professional and academic experience to the Zoos SA Board.



### TIM JARVIS AM

Tim combines his love of adventure with a passion for the natural world – demonstrated through his work as an environmental scientist, public speaker and explorer of some of the planet's remotest places. His environmental background and public advocacy experience strengthens the board and its governance.



### KEVIN MCGUINNESS

Kevin is a chartered accountant with more than 25 years experience in senior finance and operation roles. He is the past president of the society with a passion for the zoo and the role it plays within the South Australian community.



### DENNIS MUTTON

Dennis Mutton is an independent consultant in the fields of natural resources management, primary industries, regional growth initiatives, leadership development and government-business relations. He also holds a range of board directorships in government, business and not for profit organisations at State and National levels.



### KATE THIELE

Kate is Principal at Klarity and has more than 10 years of board and executive experience. Her experience in the not-for-profit sector and governance brings valuable skills to the board.



### CAROL TILT

Carol is a Professor of Accounting at the University of South Australia and a Fellow of CPA Australia. Carol is passionate about conservation and is a member of several environmental and animal welfare groups.



## BOARD SECRETARY/PUBLIC OFFICER

### KATE HARTWIG

Kate has had a long career in not-for-profit organisations having been CEO of a range of industry, professional and charitable organisations in Adelaide, Sydney and Melbourne. She was appointed as the Zoos SA Board Secretary and Public Officer in 2013.





Image credit Dan Schultz

BOARD MEETING ATTENDANCE 2016-17

	26/7/16	20/9/16	25/10/16	13/12/16	31/1/17	7/3/17	28/3/17	27/4/17	27/6/17	ATTENDED	APOLOGY
David Sanders	1	1	1	1	1	1	1	0	1	8	1
Rodney Hobbs	0	1	1	Finished as Board member 24 November 2016						2	1
Kevin McGuinness	1	1	1	0	1	1	1	1	1	8	1
Graeme Crook	1	1	1	1	1	0	0	1	1	7	2
Tracey Shepard	1	1	0	Finished as Board member 24 November 2016						2	1
Carol Tilt	1	0	1	1	1	1	1	1	0	7	2
Kate Thiele	1	0	1	1	0	1	1	1	1	7	2
Julieann Riedstra	1	1	1	1	1	1	1	1	1	9	0
Tim Jarvis	0	1	0	0	0	1	0	0	0	2	6
Dennis Mutton	Commenced 24 November 2016			1	1	1	0	1	0	4	2
Rod Buchecker	Commenced 31 January 2017				1	1	1	1	1	5	0

SUB-COMMITTEE MEMBERSHIP AND ATTENDANCE 2016-17

FINANCE AND AUDIT MEETINGS

	26/7/16	25/8/16	22/9/16	25/10/16	25/11/16	25/1/17	23/2/17	23/3/17	20/4/17	25/5/17	22/6/17	ATTENDED	APOLOGY
Kevin McGuinness	1	1	1	1	1	0	1	1	1	0	1	9	2
David Sanders	1	0	1	1	1	1	0	1	0	1	1	8	3
Julieann Riedstra	1	1	1	1	1	1	1	1	1	0	1	10	1
Dennis Mutton	1	1	1	1	1	1	1	1	1	1	0	10	1

RISK AND GOVERNANCE MEETINGS

	31/8/16	12/12/16	15/3/17	ATTENDED	APOLOGY
Kate Thiele		1	1	3	0
Kevin McGuinness		0	1	2	1
Kate Hartwig		1	1	3	0
David Sanders		1	0	2	1

ZOOS SA SENIOR MANAGEMENT

The chief executive and senior management team are responsible for the implementation of corporate strategy and business plan initiatives. The organisation is managed through five divisions with each director supported by a team of staff and a formal delegations manual outlines the level of authority held by positions within the organisation.

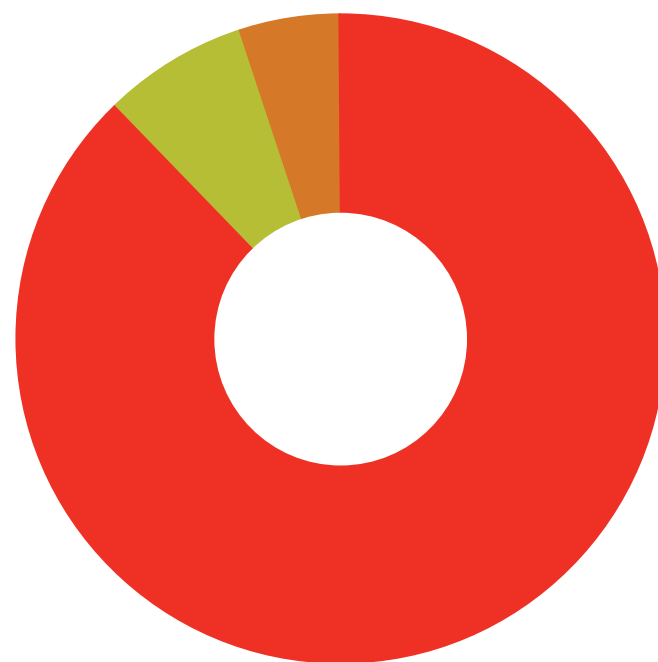
DIRECTOR CORPORATE SERVICES	DIRECTOR LIFE SCIENCES	DIRECTOR BUSINESS OPERATIONS	DIRECTOR HUMAN RESOURCES	DIRECTOR PROPERTY AND DEVELOPMENT
Darren Hastings	Peter Clark	Sarah Brown	Leonie Murphy	Les Jones



# Year in Review Snapshot

## FIVE YEAR BUSINESS PLAN

This financial year Zoos SA tracked and reported progress against a set of activities outlined in its business plan. This plan is guided by our strategic plan and the activities span all areas of the organisation. Over the year, significant headway was made against many of the tasks with the majority completed within this financial year or well progressed. Out of a total of 56 individual tasks detailed in the business plan, 49 were completed, four partially completed and three not completed.



- Completed
- Partially Completed
- Not Achieved in Financial Year

**130,000**  
followers  
on social media

**298** animals were born at  
**Adelaide Zoo**

**125** animals were born at  
**Monarto Zoo**

**\$14 Million** in free media  
coverage attracted

**585,872**

people visited  
Adelaide Zoo and Monarto Zoo

**500**

registered  
volunteers  
across both sites

**\$35,000** raised  
to build  
a habitat protection tower in Sumatra to  
create a safe haven for wild orangutans

**2,887** life  
members

**41,565** annual  
members

Sumatran  
Tiger

Greater  
Bilby

Sumatran  
Orangutan

Meerkat

Four most  
popular  
animals to  
adopt

**11** international  
conservation projects  
were supported

**7,225** native tubestock  
planted for the  
South-eastern Red-tailed  
Black Cockatoo



# Year in Review Finance Snapshot

2016-17 continued to see good growth for Zoos SA. We are pleased to report a surplus of \$244,000, which was \$190,000 ahead of our budget surplus of \$54,000.

We have been able to strengthen our financial position, despite challenging revenue and cost targets.

We have continued the trend of strong visitor growth, with increases in attendances of 3%. We saw total attendances in 2016/17 of 585,872, up from 566,000 in 2015/16. This saw an increase in admissions and retail income of \$181,000.

These increased admissions are supported by increasing membership levels, with membership up by 11% on 2015/16. This increased membership amounts to approximately \$331,000 of additional income.

Education income increased by 9% due to our focus on providing new experiences to guests, which resulted in an increase in school visits.

We received bequest income of \$172,000, and corporate support from in-kind contributions and sponsorships was significant at \$1,545,000. This decreased from 2015/16 due primarily to sponsorship funding received during 2015/16 that supported our Nature's Playground development. The strong level of corporate support is particularly pleasing given the difficult corporate sponsorship market.

Operating expenditure continues to be well controlled, with several initiatives being implemented to drive efficiencies, and to reduce costs. This is in line with our proactive approach to activity and expense management.

We are not alone in facing cost pressures, particularly in relation to energy and water prices. Late in 2015/16, we implemented a solar power purchasing agreement (PPA) with AGL. The effect of these panels will be to reduce our reliance on externally supplied electricity by approximately 20%, and result in reduced emissions of 200 tonnes of CO<sub>2</sub>-e. The financial benefits of this were seen in 2016/17, where despite significant usage charge rate increases from 1 January 2017, we saw a net reduction in electricity expenditure due to reduced volume consumed.

We continue to explore opportunities to reduce costs, consumption and waste.

We invested \$1,867,000 in capital during 2016/17 (\$2,921,000 in 2015/16). Of this, \$403,000 was for the new Lions 360 experience at Monarto Zoo, and \$301,000 was for ongoing development of our Wild Africa precinct. We continue to invest in maintenance and improvement capital, balancing the need for maintenance investment with the requirement to invest in new and exciting facilities.

We budget for capital investment each year, and where additional funds become available during the year, we assess whether these funds are best applied against capital or accelerated debt reduction.

Our investment portfolio continues to provide good returns, with dividends of \$22,000.

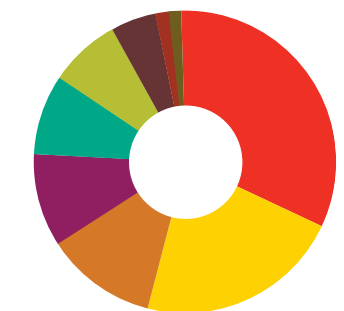
The Westpac debt was reduced by \$500,000, with a balance at 30 June of \$5,800,000. We have budgeted to reduce this by \$750,000 during 2017/18. On 7 July this Westpac debt was refinanced with ANZ, following the expiry of the Westpac facility.

In updating our rolling 5 year business plan, we have prepared forward estimates that enable reduction of our ANZ loan from within our annual operating budget. The repayment schedule is regularly discussed with ANZ and the State Government.

## KEY ACHIEVEMENTS:

- Surplus of \$244,000;
- Membership numbers and revenue up by 11%;
- Controlled cash flow and increased investment portfolio;
- Continued improvements to purchasing and procurement practices;
- Maintenance and development capital expenditure in line with previous years, and commencement of construction of the Lions 360 experience at Monarto Zoo;
- Visitor admissions up by 3%;
- The solar power panel agreement is showing benefits in terms of reduced electricity consumption.

## REVENUE



Admissions including Education	34%
Grants - State Government	22%
Membership	12%
Fundraising, Sponsorship & Donations	9%
Retail & Catering	9%
Grants - Other	7%
Tours & Events	5%
Bequests	1%
Other	1%

This graph represents the society's revenue for 2016-17 as detailed on page 61. Grants revenue has been further separated into 'state government' and 'other' categories.

## EXPENSES



Animal Care	36%
Customer Service	22%
Exhibits, Gardens & Buildings	16%
Education, Conservation & Research	13%
Fundraising & Marketing	10%
Administration	3%

This graph represents the society's expenses and how it spends its revenue. Salary costs have been allocated to the categories listed above so as to provide more detailed information on how funds are spent.



Green Tree Frog / Image credit Adrian Mann



# Saving Species From Extinction

The last twelve months have been significant with a number of important births, deaths and new additions at both Adelaide and Monarto Zoo.

Late last year, there was a lot of joy in our primate department at Adelaide Zoo with a string of important births.

The excitement began with the birth of a critically endangered Golden Lion Tamarin to seasoned parents Rio and Aurora. Since the 1980s, Adelaide Zoo has celebrated the birth of more than 70 Golden Lion-tamarin infants, an important contribution to saving this endangered species from extinction.

Later in October, a male Hamadryas Baboon was born. Djibouti is the second offspring born to parents Chappi and Horus and has become a great playmate for big brother Tomkay.

In December, we were thrilled to welcome another critically-endangered White-cheeked Gibbon baby, the third daughter for parents Viet and Remus.

**Our breeding efforts provide tangible evidence of our commitment as a conservation charity to saving species from extinction.**

In another significant conservation success, we welcomed four critically endangered Western Swamp Tortoises to the family. The tiny tortoises will play an important role in our work helping to secure a future for Australia's rarest reptile and will one day make the journey back to Western Australia to be released into the wild.

At Monarto Zoo, we were thrilled to continue our work ensuring a future for Africa's most endangered big cat, with five Cheetah cubs born in March.

This year, we also welcomed the 40<sup>th</sup> and 41<sup>st</sup> giraffe calves to be born at Monarto Zoo. We are proud to be the most successful giraffe breeding facility in Australasia, with our breeding program providing a vital lifeline to this vulnerable species.

We again had great results breeding one of Australia's rarest lizards, the Pygmy-blue Tongue Lizard, with 18 neonates hatching. Zoos SA is proud to be the only organisation breeding this rare lizard to build a vital insurance population.

In another positive breeding story, we welcomed a pair of African Crested Porcupines to Monarto Zoo in February, who wasted no time in welcoming their first porcupette!

Our breeding efforts provide tangible evidence of our commitment as a conservation charity to saving species from extinction.

Caring for more than 3,000 animals, we have celebrated the highs of some incredible breeding successes. Given the size of our collection, we also experienced sadness, and in 2016/17 we mourned the loss of some iconic members of the zoo family.

In January, we were saddened by the tragic passing of Karta the Sumatran Orangutan who died after giving birth to a stillborn infant and experiencing placental detachment issues during labour. To honour Karta's life, we're proud to have raised more than \$35,000 with the support of our passionate community to build a habitat protection tower in Sumatra. Karta's legacy will now live on through the creation of a safe haven for wild orangutans in Bukit Tigapuluh, a 360,000ha habitat located in central Sumatra which is home to more than 165 orphaned orangutans.

In June, we farewelled Miss C the Hoffmann's Two-toed Sloth who was humanely euthanised due to age-related issues. At 43 years old, Miss C was the last sloth in Australia and believed to be the oldest of her kind in the world.

Baby Hamadryas Baboon and mum / Image credit: Adrian Mann

Also in June, we were sad to announce the passing of Kemiri, Australia's oldest Sumatran Tiger. The decision was made to humanely put Kemiri to sleep as she had a number of age-related conditions which were affecting her quality of life.

We also said goodbye to Monarto Zoo's 18-month-old Southern White Rhino, Tundu, in April, who sadly passed away after receiving injuries likely caused by another rhino during play.

A complete listing of animals housed at Adelaide and Monarto Zoos listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora and International Union for the Conservation of Nature is detailed in Appendix A.





Karta, Sumatran Orangutan / Image credit: Adrian Mann

## ADELAIDE ZOO

### ARRIVALS AND BIRTHS

**July 2016 – January 2017** In July, we transferred out two of the new Hamadryas Baboon females we had acquired from Wellington Zoo to Melbourne Zoo due to compatibility issues. In October, we had a birth of young male. This was then followed in January with the sad passing of the grandmother to this increasing family.

**December 2016** We celebrated another White-cheeked Gibbon birth, a female. This family is one of the most successful breeding groups within the region and continue to provide lots of hours of engagement for our visitors.

**June 2017** A male Golden Lion Tamarin was transferred into Adelaide Zoo from Mogo Zoo to set up a new breeding pair.

**May 2017** A female otter arrived from Auckland in New Zealand to be the founder of our new breeding program. She will be paired up with our remaining young male.

**June 2017** A male Serval transferred out of the collection to Altina Zoo in NSW. At a later date, his sibling, the second animal born in 2015, will be transferred to Gorge Wildlife Park as part of the regional breeding program.

**October 2016 – April 2017** It was a busy period for our Slender-tailed Meerkat families. Sadly, we lost three animals to various health and age related issues, but we did import two young females in August 2016 and then two young males in February 2017 from Perth. This has now allowed us to set up two breeding groups, one at Adelaide and one at Monarto. All looks good for the breeding and holding of this species at Zoos SA well into the future.

### NEW TO THE ZOO

**August 2016** Back into our collection after several years, a male Maned Wolf was acquired from Altina Zoo. He is housed in the old African Wild Dog exhibit.

**June 2017** A female Maned Wolf was received and introduced to our male we received in 2016. As they are a related pair, they are for display purpose only.

### DEPARTURES

**July 2016** Male Mandrill transferred to Tasmania Zoo as a companion animal for the single female they currently have.

**August 2016** The male Red Panda bred at Adelaide in 2015 was transferred out to now reside in Australia Zoo, Queensland, as part of the regional program.

**November 2016** Two Capybara, a castrated male and a female, were transferred to Hunter Valley Zoo in NSW. This leaves us with our original trio, which we now have together in their exhibit near the lemurs.

**February 2017** A male Golden Lion Tamarin was transferred to Wellington Zoo in New Zealand to set up a new breeding pair.

**June 2017** Two male and one female otter were transferred out of the collection to now reside at National Zoo, in Canberra. This will allow us to breed from a newly imported female.

**June 2017** One of our Siamang family groups, father, mother and son, were transferred out of the old exhibit near the horticultural building to Darling Downs Zoo in Queensland.

### SORELY MISSED

**July 2016** Our two remaining female African Wild Dogs passed away. Both were aged more than 13 years old.

**July 2016** Female Dusky Leaf Monkey aged more than 18 years old passed away due to ill health.

**October 2016** 26-year-old Ring-tailed Lemur passed away due to age related health issues.

**January 2017** Binturong passed away due to age related health issues.

**January 2017** Sumatran Orangutan, Karta, and baby died during child birth.

**June 2017** Sumatran Tiger, Kemiri, the oldest tiger in Australia, passed away due to age-related issues.

## GIANT PANDA UPDATE

During the 2016 Giant Panda breeding season, two artificial insemination procedures were carried out on Fu Ni with semen from breeding partner Wang Wang.

Following the artificial insemination procedures in October, Fu Ni showed signs of a potential pregnancy, however in March she experienced a pseudo labour. Fu Ni adopted a toy kong to raise, which she cradled close to her, showing strong maternal instincts. Although Fu Ni did not give birth this year, we have every hope that she will go on to become a mother in the future.

The 2016 breeding season was Wang Wang and Fu Ni's third genuine attempt at breeding and we remain determined to help them on their journey to parenthood. The knowledge and experience gained this breeding season puts us in an excellent position to experience success in the future. Adelaide Zoo is committed to Giant Panda conservation, and we look forward to continuing our work with research partners and colleagues in China.



## MONARTO ZOO

### ARRIVALS AND BIRTHS

**2016 – 2017** Five Addax calves born throughout the year and two young male Addax arrived from other institutions.

**2016 – 2017** Eight Scimitar-horned Oryx were born, with seven surviving.

**July – August 2016** A male and female Przewalski's Horse were born.

**July 2016 – April 2017** 14 Blackbuck born in the Asia exhibit.

**July 2016 – December 2016** Four Brush-tailed Bettongs were born, with three surviving.

**August 2016** A female Tammar Wallaby was born.

**September 2016** We received a young male Bongo from Taronga Western Plains Zoo.

**October 2016** A Tawny Frogmouth chick hatched, but did not survive.

**October – November 2016** Four bilbies were born.

**November 2016** A Fallow Deer was born in Asia.

**November 2016** A male Cheetah arrived from National Zoo and Aquarium in Canberra.

**November 2016** A Spotted Hyena cub was born, but did not survive.

**November 2016 – January 2017** Three male and one female Red Deer were born into our herd.

**November 2016 – June 2017** 13 Eland calves were born, with 11 surviving.

**February 2017** Our Pygmy Blue-tongue Lizards bred successfully, producing 18 young.

**February 2017** A male Waterbuck calf was born.

**February – April 2017** Three Tammar Wallabies were born, with one male not surviving.

**February and June 2017** Three male Yellow-footed Rock-wallabies arrived from Adelaide Zoo.

**March 2017** First-time Cheetah mum Kesho welcomed one male and four female cubs. She is one of the cubs from our last litter in 2012.

**March 2017** A female Przewalski's Horse and a female Fallow Deer were born.

**March – May 2017** A total of six Tasmanian Devil joeys were born to three different mums.

**April 2017** We received a breeding pair of Meerkats which are housed next to the porcupines.

**April – May 2017** We welcomed our first two giraffe calves in eight years, both males.

**May 2017** Our female African Painted Dog gave birth to an unknown number of pups, and subsequently had to undergo surgery which required a full hysterectomy due to infection from a single retained pup. Unfortunately no pups survived.

### NEW TO THE ZOO

**August – September 2016** Our first pair of Western Swamp Tortoises arrived. Monarto was successful in breeding this species with a clutch of three laid, and one hatchling surviving.

**February 2017** We welcomed the arrival of a pair of African-crested Porcupines, who soon blessed us with our first porcupette!

**March 2017** We added a free-range Golden Orb-weaving Spider to our Visitor Centre display.

**June 2017** Three pair of Rufous-crowned Emu-wrens were collected from the wild outside of Alice Springs. This species will allow us to gain skills for the care of the endangered Mallee Emu-wren in the future.

### DEPARTURES

**August 2016 – June 2017** A pair of Addax were sent to Darling Downs Zoo.

**September 2016** A young pair of Bison were sent to another facility.

**November 2016** Two female Przewalski's Horses went to Taronga Western Plains Zoo.

**February 2017** A small group of Yellow-footed Rock-wallabies went to Waite Institute.

**March 2017** A young female Brush-tailed Bettong went to Adelaide Zoo to be hand-reared and join the presentations team.

**March 2017** A young male Yellow-footed Rock-wallaby was sent to Gorge Wildlife Park.

**May 2017** Two male bilbies were transferred to Healesville Sanctuary.

**June 2017** Four male Yellow-footed Rock-wallabies went to Caversham Wildlife Park in Perth.

### SORELY MISSED

**2016 – 2017** Five Addax of varying ages died.

**July 2016** An older male Przewalski's Horse died.

**July – December 2016** We lost two aged Eland and an adult male Eland.

**August 2016 – April 2017** Three aged Bison were euthanised due to medical reasons.

**October 2016** A female Tammar Wallaby died.

**November 2016** One of our female Mallee Fowl died and an aged male Tasmanian Devil died.

**January 2017** An aged Przewalski's Horse was euthanised due to medical concerns.

**February 2017** The first giraffe calf ever born at Monarto, Moja, passed away at 22 years old.

**March 2017** We lost a young female Brush-tailed Bettong and a premature Przewalski's Horse.

**April 2017** Two male Eland died.

**April 2017** We were very saddened by the loss of Tundu, our most recent White Rhino calf at only 18 months old, by misadventure.

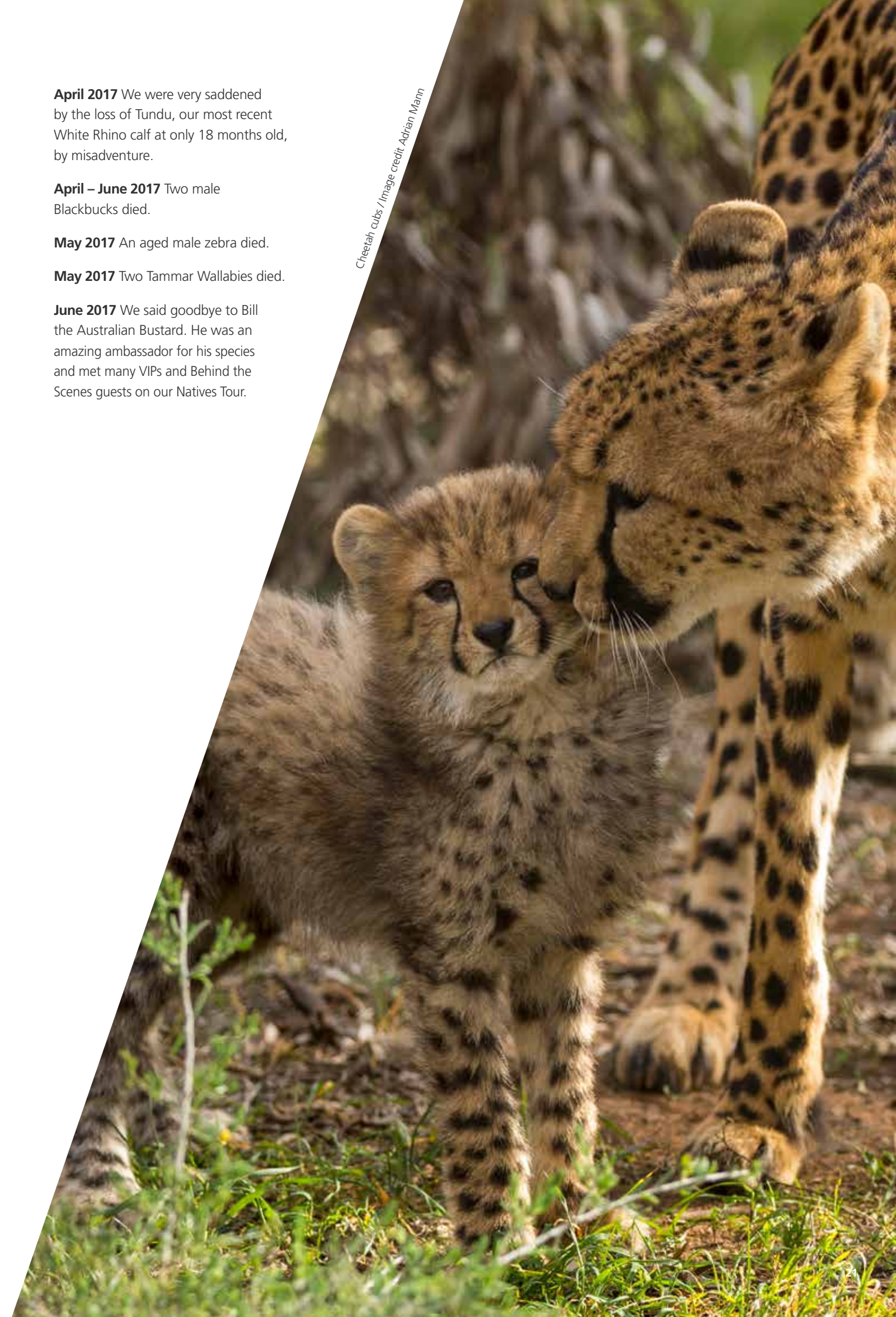
**April – June 2017** Two male Blackbucks died.

**May 2017** An aged male zebra died.

**May 2017** Two Tammar Wallabies died.

**June 2017** We said goodbye to Bill the Australian Bustard. He was an amazing ambassador for his species and met many VIPs and Behind the Scenes guests on our Natives Tour.

Cheetah cubs / Image credit Adrian Mann







Kemiri, Sumatran Tiger

# Animal Health

The Animal Health Department (AHD) team remained relatively stable through 2016-17, with our Veterinary Nurse Sonya Medhurst commencing maternity leave towards the end of financial year. The first half of 2017 was a particularly busy period for the AHD. During this six month period, we quarantined roughly the same number of new animal acquisitions as we did for the whole of 2016.

Our team, supported by a range of laboratory, diagnostic and administrative volunteers, has continued to provide a high standard of health care for the Zoos SA collection. We have maintained and developed a range of conservation and research partnerships, outlined under Research in Appendix E. The AHD continued to host veterinary and veterinary nursing students on clinical placements, and again conducted lectures and practical sessions as part of the University of Adelaide Doctor of Veterinary Medicine curriculum. We also continue to actively contribute to a number of professional associations and serve on a range of external committees. More than 20 families visited the AHD during the year as part of our contribution to the Ronald McDonald family program.

## CLINICAL SERVICES

There were many interesting and challenging clinical cases over the last year.

### KEY HIGHLIGHTS FOR ADELAIDE ZOO

Giant Panda breeding season was again an intensive focus of the AHD this year. While our efforts proved unsuccessful in 2016, we were happy with how our team and external partners worked together throughout this period. It was another valuable experience for our whole team, and we continue to refine our approach as we look towards future breeding seasons.

An adenovirus was identified in some of the Orange-bellied Parrots involved in a mortality cluster the previous year. While the deaths were not attributed to the virus, the remainder of the OBP flock was screened, along with a range of other species in the zoo collection.

We continue to work with the OBP Veterinary Technical Reference Group on the implications of this finding to the recovery program more broadly.

An African-spurred Tortoise was acquired by Zoos SA from a private source with no available history. Quarantine screening identified *Mycoplasma agassizii*, a significant pathogen of land tortoises overseas and not previously recognised in Australia. Investigations into the prevalence of this bacterium in the Zoos SA and other regional collections are ongoing.

Female Palm Cockatoo 'Mrs Benn' underwent an intensive diagnostic workup for acute respiratory distress, including a CT scan at Sound Radiology. She was diagnosed with a fungal infection at the base of the trachea, with some extension into her lungs and airsacs. A six-month multi-drug treatment protocol proved very successful. Follow up CT scans were invaluable to document resolution of respiratory tract pathology.

Other animals taken to Sound Radiology for CT scans during the past year include two Veiled Chameleons with suspected liver disease, and a free-ranging Yellow-tailed Black-cockatoo with an injured wing and concurrent Horner's Syndrome.

Four Pygmy Marmosets were hospitalised for long-term intensive treatment for *marmoset wasting syndrome*, a poorly understood disease with multiple potential causes. Only one responded well to treatment, the other three unfortunately died or had to be euthanised.

The death of Sumatran Orangutan Karta during labour was distressing for all staff, especially for keepers and veterinary staff attendant on the night. Specialist Forensic Pathologist Prof. Roger Byard, and obstetrician Anthia Rallis, were brought in to assist with the post-mortem examination of Karta and her stillborn infant. The cause of death was massive blood loss attributed to abnormal separation of the placenta.

Volunteer sonographer Joan Davy OAM continued to provide invaluable support throughout the year, advising on reproductive ultrasounds to monitor pregnancy/pseudopregnancy in Karta and Fu Ni, and performing diagnostic ultrasounds on a range of animals including a lion (Mujambi) and tiger (Kemiri).

Melbourne-based veterinary dentist David Clarke spent two marathon days performing root canals and other procedures on a lion, two tigers, two Malayan Tapirs, a Meerkat, two Mandrills and a sealion.

The difficult decision was made to euthanase elderly Sumatran Tiger Kemiri in June. Kemiri had been living with a number of age-related problems, including chronic kidney disease, and she had showed noticeable deterioration over the previous several weeks.

### KEY HIGHLIGHTS FOR MONARTO ZOO

Chimpanzee Sandali sustained multiple fractures to his right leg during an awkward fall on exhibit. University of Adelaide specialist veterinary surgeon Penny Tisdall performed the fracture repair, which required a pin and four plates to stabilise. Sandali's leg healed very well, though his post-operative care resulted in a split in the chimp troop, the implications of which are still being felt.

Zombi, one of our female Chimpanzees, was anaesthetised to investigate a perineal swelling, with obstetrician Anthia Rallis and a team of human reproductive specialists in attendance.

Our breeding female African Wild Dog, Kibi, developed an infected uterus associated with a failed pregnancy. Unfortunately this necessitated an ovariectomy, putting an end to her breeding days. Kibi successfully raised four cubs the previous year.

A number of other procedures also focussed on reproductive matters. We performed electroejaculation on Hyaena and Cheetah to assess sperm quality, and monitored hormones in

Cheetah and White Rhino to determine pregnancies. On the flip side of reproductive management, a male Blackbuck was vasectomised to maintain normal social dynamics on exhibit without a population explosion.

Cheetah Nakula was diagnosed with gastritis, a common disease in captive Cheetah resulting in vomiting and other signs. Following an extended course of medication, and a surgery that saw her spleen removed, she recovered well.

Veterinary ophthalmologist Tony Read performed surgery on a severe corneal ulcer in male Hyaena, Piltengi, the latest in a series of such eye issues in Hyaena and Cheetah. Dr Read has examined a range of eye cases across both Monarto and Adelaide Zoos, contributing an important case load to the specialist training program of his residency.

Piltengi also required two root canals during a visit from veterinary dentist David Clarke, who also attended to Hyaena Forest, African Lion Inkosi and Cheetah Saadani, in a marathon day for the Monarto veterinary and carnivore teams.

The unexpected death of one-year-old female White Rhino Tundu overnight in April was agonising for her keepers, and the broader Zoos SA community, who had watched her grow up at Monarto. Post-mortem examination showed a massive bleed into her diaphragm, consistent with trauma. While we will never know exactly what happened, the circumstances of her death suggest misadventure was most likely.



## WILDLIFE HEALTH

We continue our involvement with the Zoo-based Wildlife Disease Surveillance Project coordinated by Wildlife Health Australia.

Senior Veterinarian Dr Ian Smith and Senior Veterinary Nurse Rebecca Probert travelled to the APY Lands to assist with translocation of Warru.

Veterinarians, Drs David and Jennifer McLelland, participated in a number of trapping events for Regent Parrots near Waikerie, for health monitoring and attaching radio-transmitters as part of the broader recovery project. A number of regent parrots in the Adelaide Zoo collection were fitted with a new harness design to trial ahead of proposed deployment of satellite transmitters in late 2017.

Veterinarian Dr Lynley Johnson assisted with capture of Rufous-crowned Emu-wrens to establish captive husbandry protocols ahead of proposed establishment of a captive breeding population of Mallee Emu-wrens.

## FACILITIES AND EQUIPMENT

We upgraded our anaesthetic monitoring equipment at both Adelaide and Monarto Zoos. A portable blood chemistry analyser was acquired at Monarto Zoo to allow for real-time diagnostic testing for field procedures. A power dental float will improve our ability to address dental abnormalities in large animals. A new digital dental xray system was acquired for Adelaide Zoo, allowing us to maintain dental imaging capability at both sites.

Brian Rich, longstanding laboratory volunteer and driving force behind the AHC research lab, purchased a new Beckman chemistry analyser, to arrive in August 2017. This is to replace the equally longstanding Cobas analyser that has come to the end of its day. This is a significant acquisition that will revolutionise the diagnostic and research capabilities of our laboratory volunteers.

## ETHICS AND WELFARE

As a zoo-based conservation organisation with responsibility for the care of animals in our zoos, and in the field through our conservation projects, we aim to ensure that our activities are underpinned by high standards in animal welfare that reflect the needs and interests of our animals.

The Animal Welfare and Ethics Committee, chaired by Dr Ian Smith and comprising internal and external representatives, continues to meet biannually to provide oversight and transparency to animal welfare and ethical considerations for our organisation.

The Aged Animal Assessment framework provides a formal, objective tool for evaluating the welfare of aged and debilitated animals over time. We continue to work with curatorial and keeping staff to apply this assessment tool across the collection.

## ACKNOWLEDGEMENTS

Special thanks must go to volunteers Brian Rich, Peter McCarthy, Wayne Rohrig, Brian Matthews and Jenny McInerney, who have continued to provide diagnostic support and nutritional advice to the animal health team, and Lynne Kerr for administrative assistance. Our thanks are also extended to all external supporters, specialists and service providers: Websters Lawyers, the School of Animal and Veterinary Sciences at the University of Adelaide Roseworthy Campus (particularly the Veterinary Diagnostic Laboratory), Repromed, Dr Tony Read and Dr Kellam Bayley from Veterinary Ophthalmic Referrals, David Clark and the team at K9 Gums, Joan Davy OAM, Sound Radiology, Anthia Rallis, Roger Byard, the Adelaide Animal Hospital, the Adelaide Veterinary Specialist and Referral Centre, the Adelaide Animal Emergency and Referral Centre, Healthscope, Murdoch University, the University of Sydney, Total Medical Imaging Solutions, Wildlife Health Australia and the Australian Registry of Wildlife Health.

**The first half of 2017 was a particularly busy period for the AHD. During this six month period, we quarantined roughly the same number of new animal acquisitions as we did for the whole of 2016.**

Webster's Lawyers  
Animal Health Centre.





# Conservation Projects Beyond Our Gates

Maureen, Warru / Image credit Nicole Miller

Zoos SA has continued its work in local, national and international conservation programs. Our conservation efforts have had great success and seen the development and expansion of our projects. Over the last year we have seen wild translocations, new species and new facilities being completed.

Zoos SA's Conservation Directions outlines a framework to help prioritise, support and communicate our conservation efforts. The framework identifies three focus regions:



The Threatened Species Commissioner Gregory Andrews joined the Warru Recovery Team along with Zoos SA staff during a Warru translocation in the in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands.

Our Mallee Emu-wren program has begun, with Rufous-crowned Emu-wrens now being housed at Monarto Zoo to provide a learning surrogate for the Mallee Emu-wren. Fieldwork with the nationally threatened Striped Legless Lizard in the southeast of the state has continued this year, with 27 lizards being recorded during spring surveys.

## WALLABIES

Over the last twelve months, work has continued across two of Zoos SA's wallaby programs: the Black-flanked Rock-wallaby (or Warru) and Yellow-footed Rock-wallaby. Support of these programs includes a range of activities such as feral control, captive breeding, translocation and the monitoring of released animals.

### BLACK-FLANKED ROCK-WALLABY (WARRU) KEY HIGHLIGHTS:

The Warru Pintji (fenced enclosure) population was ready for its next phase of translocating animals outside of the Pintji.

Warru were translocated to Wamitjara, the last known extinction site. The translocated Warru were a combination of wild and Pintji animals (progeny of Monarto Zoo bred Warru).

The Warru translocation now brings the South Australian population to three sites in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands.

Federal funding was secured for the Warru Recovery Team to undertake the translocation and ongoing management, with Zoos SA supporting its facilitation (\$200,000).

Maureen, Monarto Zoo's famous female Warru, continues to be an important ambassador for the project and has played an important role sharing the Warru story over the last 12 months.

### YELLOW-FOOTED ROCK WALLABY KEY HIGHLIGHTS:

Regular feral control trips continued to Aroona Sanctuary, near Leigh Creek, to provide ongoing management of feral animals, which impact on the wild Yellow-footed Rock-Wallaby population.

Fox baiting was undertaken quarterly.

Involved in ongoing discussion with range of Aroona Sanctuary stakeholders, regarding the long-term management of the sanctuary.



## PYGMY BLUE-TONGUE LIZARD

The Pygmy Blue-tongue Lizard is one of Australia's rarest reptile species. Found only in South Australia, it was considered extinct until its rediscovery in the mid-north of the state in the early 1990's. Zoos SA's role in the recovery effort for this unique lizard, which lives in disused spider burrows, is to investigate its captive husbandry and breeding requirements. This year has seen the expansion of the research program to complete the second breeding facility.

### KEY HIGHLIGHTS:

Another successful captive breeding year for the Pygmy Blue-tongue Lizard with 18 babies being born at Monarto Zoo during January 2017.

Construction of a second purpose-built research and breeding facility has been completed at Monarto Zoo.

Additional 81 lizards being housed in a new facility as part of a research project in partnership with Flinders University.

## RED-TAILED BLACK-COCKATOO

Our work continued with local farmers in southeast South Australia to protect and restore stringybark and buloke habitat, the main feeding trees of the southeast Red-tailed Black-cockatoo. This planting season has seen the hand planting of 7,225 individual tube stock plants and the direct seeding of nearly 2.3kg of native seeds. The survival rate of the plantings has been a record success. The plant survival was greater than 80% for all species planted, with the greatest success of 98% for the Drooping Sheoak and greater than 95% for a number of Eucalypt, Melaleuca and Acacia species.

### KEY HIGHLIGHTS:

Finalisation of the 20 Million Trees (2015-17) project funding which has seen 63.25Ha of native stringy bark habitat planted on private land.

All of the planned site preparation, weed treatments and back-fill planting were completed.

High planting success rates were observed with most sites having greater than 90% success across the project.

Continued support for the local landholder network, fostering peer mentoring skills in local communities around Lucindale and Naracoorte.

Additional funding, in partnership with Birdlife Australia, has been sought to continue the program.

## MALLEE EMU-WREN

The Mallee Emu-wren habitat has been lost in South Australia through large fire events, and there is little remaining habitat in Victoria. Zoos SA is engaged as part of a wider Threatened Mallee Bird Conservation Action Plan Implementation Team which is driving conservation and management priorities for a number of mallee birds. One of the priorities is establishing the captive husbandry for the Mallee Emu-wren, with the first stage seeing Rufous-crowned Emu-wrens being housed as a learning surrogate. Few emu-wrens have been held in captivity before and there is limited knowledge on the ecology, behaviour and biology of these tiny, 4 to 5g birds.

### KEY HIGHLIGHTS:

New aviaries completed at Monarto Zoo, with the support of the Rotary Club of Murray Bridge.

Field efforts to locate and collect Rufous-crowned Emu-wrens from central Australia.

First known occurrence of Rufous-crowned Emu-wrens being housed in captivity.

Six Rufous-crowned Emu-wrens transported to Monarto Zoo, where they have been housed in quarantine facilities.

Significant learnings for Mallee Emu-wren capture, feeding and transport, providing invaluable information for future Mallee Emu-wren translocation efforts.

## WESTERN SWAMP TORTOISE

The Western Swamp Tortoise is globally considered one of the rarest freshwater turtles, with fewer than 30 individuals remaining in their natural habitat in the 1980s. Found only in a small number of ephemeral swamps on the Swan Coastal Plain in Western Australia, Zoos SA is one of two institutions working on a captive breeding for release program.

### KEY HIGHLIGHTS:

Zoos SA's breeding colony yielded four hatchling tortoises, which are all doing well.

Five young tortoises bred at Adelaide Zoo were returned to Western Australia for inclusion in the wild release program.

Construction of a breeding facility at Monarto Zoo has been completed.

The first breeding season at Monarto Zoo was successful, with the initial pair producing viable eggs.

## ORANGE-BELLIED PARROT

The Orange-bellied Parrot is considered Australia's rarest bird species. Fewer than 20 birds returned to Tasmania's rugged south west wilderness region from the Australian mainland in preparation for the 2016 breeding season. Zoos SA is part of a collaboration of zoos, sanctuaries and aviculturists that have been charged with the responsibility of safeguarding a captive insurance population, and breeding birds for release back into their natural habitat in an effort to prevent extinction.

### KEY HIGHLIGHTS:

Adelaide Zoo successfully fledged eight young birds.

Continued representation on the Recovery Team: Veterinary Technical Reference Group, formed to respond to disease and health issues and the Captive Management Group.

## STRIPED LEGLESS LIZARD

The Striped Legless Lizard is a grassland specialist that has suffered major habitat loss and fragmentation and, along with other emerging threats, has resulted in a rapid decline in this species across its distribution. Zoos SA is monitoring the wild population to determine the status of this rare lizard and build our knowledge about this species. Field survey sites have been established on a combination of crown and privately owned land and were monitored for Striped Legless Lizard presence.

### KEY HIGHLIGHTS:

Six additional survey sites were established during Spring in 2016.

27 Striped Legless Lizards were captured, allowing valuable data and measurements to be recorded.

Three White Lipped Snakes, which are rare in South Australia, were also recorded, as were a number of other reptile and amphibian species during survey visits.



Western Swamp Tortoise / Image credit John Della



## ALOC

Monarto Zoo's Aboriginal Learning on Country (ALoC) program has continued to be a success within the region. Our team has been involved in a range of biodiversity projects both inside and outside of the zoo, including monitoring freshwater turtles in the River Murray and native vegetation restoration and maintenance projects within the Murray Darling Basin precinct.

### HIGHLIGHTS

On-going improvement of onsite remnant vegetation through weeding and pest control activities.

Three school-based trainees and one full-time trainee have continued working with the Monarto ALoC team.

Full-time trainee achieved a Certificate III in Conservation and Land Management.

Undertaking freshwater turtle monitoring along the Murray River.

Provided support for Flinders University (Biodiversity and Conservation) students over a two week program.

## INTERNATIONAL CONSERVATION SUPPORT

In addition to our native programs, Zoos SA provides conservation support on an international level. Projects receiving this support have a focus on protecting habitats, the species in them and working with local communities. Over the past 12 months, we have continued our conservation support for ecosystems associated with the following areas: the African Tropical Rainforests, African Rangelands, China's Sichuan Province, South East Asia and Tetepare, Solomon Islands.

### KEY HIGHLIGHTS

Providing ranger support in Africa's rangelands in Sera Conservancy, Kenya. The presence of the rangers in these areas is reducing poaching and protecting a range of species including rhinos.

Supporting alternate livelihoods in Sera Conservancy, Kenya.

Supporting conservation education and undertaking wildlife research and conservation through Chipembele Wildlife Education Trust.

Supporting the China Wildlife Conservation Association with Giant Panda conservation activities.

Supporting Tacugama Chimpanzee Sanctuary to continue and expand their community outreach programs.

Supporting community conservation through education in Tetepare, Solomon Islands, where locals are protecting an island and the surrounding marine environment.

Supporting the Cheetah Conservation Fund to protect Cheetah in their natural environment.

Supporting two Forest Guardians through the Red Panda Network.

Supporting Wildlife Asia to help protect and conserve the wildlife and habitat in Asia.

Supporting global improvement of animal welfare practices in zoos and aquaria through a Silver Membership with Wild Welfare.

Red-tailed Black Cockatoo / Image credit Nicole Miller





# Our conservation reach

We provide specialist expertise and financial support for international conservation projects covering Africa, Asia and the Pacific regions to protect habitats, support species recovery and work with local communities. We also support research and actions to adopt best practice in animal welfare and to address illegal wildlife trade.

## 1. Australia

**Key native species projects:** Orange-bellied Parrot, Mallee Emu-wren, Pygmy Bluetongue, Western Swamp Tortoise, Greater Bilby, Yellow-footed Rock Wallaby, Black-flanked Rock-wallaby (Waru), Tasmanian Devil, Mainland Tammar wallaby and Brush-tailed Bettong

For more information about our projects and partnerships, please visit our website [www.zoossa.com.au/conservation-programs](http://www.zoossa.com.au/conservation-programs)

## 2. Tchimpounga Chimpanzee Rehabilitation Centre

**Congo** – supporting community and conservation work to end the illegal commercial bush-meat trade, provide a safe haven for orphaned Chimpanzees and support releases of Mandrills.

## 3. SERA Wildlife Conservancy

**Kenya** - support a 330,000ha wildlife conservancy in Northern Kenya owned by a Samburu community of 16,000 tribes people, by selling bead-work made by the Samburu women and sending back all profits to support ranger wages. Successfully reintroduced Reticulated Giraffe and Black Rhino to the area.

## 4. Giant Pandas

**Sichuan Province, China** – support conservation activities including habitat protection and rehabilitation, education and community engagement.

## 5. Wildlife Asia

**Indonesia, Java, Sumatra, Malaysia** – support projects for habitat protection and rescue efforts for threatened species including Australian Orangutan Project, Free the Bears, Silvery Gibbon Project, Asian Rhino Project.

## 6. Red Panda Network

**Nepal** – supporting ranger program to protect forests and wildlife in Nepal.

## 7. Tenkile Conservation Alliance

**Papua New Guinea** - supporting communities in Lumi, Sandaun Province, Papua New Guinea to protect the critically endangered Scott's Tree-kangaroo and other local wildlife.

## 8. Tetepare

**Solomon Islands** – supporting community conservation programs and education scholarships towards protection of the largest uninhabited island in the South Pacific.

## 9. Honorary Rangers

**Kruger National Park, South Africa** – support Ranger counter-poaching efforts, particularly for rhinos by hosting a Zoos SA safari tour to Mokhololo, Kruger once per year.

## 10. Cheetah Conservation Fund

**Namibia** – saving Cheetah in the wild through research, habitat restoration, human-wildlife conflict resolution and alternative livelihoods, and education activities.

## 11. Tacugama Chimpanzee Sanctuary

**Upper Guinea Forest, Sierra Leone** – support community development and conservation programs to manage natural resources and to address significant threats to rainforest and Chimpanzees.

## 12. Zambian Carnivore Program

Painted Dog Conservation & Chipembele Wildlife Education Trust, **Zambia & Zimbabwe** - support conservation and education programs for large carnivore species such as the African Wild Dog, Cheetah, lion, leopard, hyena, their prey and the habitat they rely on.



# Connecting People with Nature

## ZOO LEARNING

The Zoo Learning team designs and delivers learning experiences for educators, students of all ages from preschool to Year 12, toddlers, along with tertiary, corporate and community groups.

Our learning experiences are designed to inform, inspire and connect people with nature. In 2016/17, 60,979 students, teachers and care givers attended Adelaide and Monarto Zoos during the school terms, a 5% increase from the 58,000 in the previous financial year.

The Zoo Learning team consists of a general manager, three permanently employed educators, an office manager, administration support at Monarto Zoo and nine casual educators who help run overnight, daytime and holiday programs. These positions are funded to create quality learning experiences for educators and their students, by combining Australian Curriculum requirements, effective teaching and learning techniques and the unique resources available at Adelaide and Monarto Zoos.

In 2016/17, we continued to witness a transition in client needs towards facilitated learning experiences delivered by professional zoo educators and a comparative decline in excursions for a self-directed day out at the zoo. Feedback from teachers suggests they want to take part in programs that support strong curriculum outcomes that promote student achievement standards. New programs that have been developed to attract greater participation in zoo educator-led learning experiences include;

- *A to Zoo*, for toddlers and pre-schoolers
- *Creature Comforts* (caring for animals)
- *Animal Life Cycles*
- *Creatures Features'* (animal adaptations)
- *My Cubby Rules* program expansion at Monarto Zoo

Some of these initiatives are offered as regular programs throughout the year, and some as *focus* programs that are available anywhere from one to four weeks per annum. Focus programs have increased Zoo Learning admissions during wetter and colder times of the year and teacher feedback from these learning experiences has been overwhelmingly positive.

The inaugural 2016 Youth at the Zoo (YATZ) group finished their year-long program and many of those chose to re-join the program in 2017. Four of the older YATZ members took up the challenge to become volunteer mentors (MATZ) to support the new YATZ cohort. YATZ is a group of young people who are supported to develop conservation and leadership skills, manage conservation campaigns and advocate for Zoos SA conservation priorities in the community.

Monarto Zoo Learning witnessed a significant change in staffing in early 2017. Ian Walton retired from the Department of Education and Child Development (DECD) and Emma Still moved to a casual educator position to give her more time to pursue her passion for conservation campaigning.

Ian Walton (Wally) was the DECD Outreach Education Manager at Monarto Zoo for many years finishing in that role when all of the state-wide Outreach Education programs concluded in January 2017. Fortunately, we still benefit from his experience and skills as a volunteer overseeing the Indaba bush camp and various other functions. Wally has been a tireless advocate for young people at Monarto Zoo and, in partnership with Emma Still, established a range of innovative hands-on learning experiences that have positively impacted on countless people's lives and inspired action for conservation.

Zoo learning / Image credit Ryan Thomas





# Marketing and Public Relations

The marketing and public relations teams continued to promote Adelaide Zoo and Monarto Zoo to the world and increase awareness for our brands, products and experiences. Targeted marketing and public relations campaigns continued to support key revenue-raising activities such as admissions, animal experiences, membership and fundraising.

In addition to promoting our core products, the team developed community awareness campaigns designed to educate the public about conservation and increase public awareness of our efforts to save species from extinction.

An integrated marketing approach continued with the use of multiple platforms including print, television, radio and digital advertising as well as direct marketing. Campaigns continued to focus on major onsite activities such as school holiday programs and the exciting calendar of events which created new and unique experiences

for our visitors to enjoy. Key campaigns included the popular animatronic dinosaur display at Adelaide Zoo, Dinosaurs Alive. During the campaign period, Adelaide achieved its highest ever January visitation, exceeding the previous highest in January 2009 with the arrival of the Giant Pandas.

There's no doubt this record visitation was influenced by Zoos SA's innovative and creative marketing and public relations campaigns. Zoos SA continued to attract significant free media and publicity through both traditional and digital media. In 2016-17, Zoos SA reached over 96 million people through media coverage, which is an increase of 31.5% on last year. Importantly, this coverage was more valuable than previous years, worth more than \$14 million in media value, compared to \$6.9 million in 2015-16.

Innovation was a key focus for the marketing and public relations teams. With global media trends showing a continued shift towards digital, the marketing and PR teams prioritised improving our consumer engagement in the digital arena. With over 1.1 million website visits during the past twelve months, a 29% percentage increase in our active email subscriber database, and a combined social media audience of more than 130,000 followers on our social media channels, these digital platforms are an increasingly powerful PR and marketing tool. This increased engagement saw ecommerce sales increase by \$800,000 (160%) in the past year.

Other examples of innovation include our campaign on World Orangutan Day last year which became a global phenomenon. To mark World Orangutan Day, Adelaide Zoo's Sumatran Orangutan Kluet released a music single. The release of the single generated awareness about the plight of Orangutans in the wild and promoted Adelaide Zoo to the world, attracting 463 media placements and was worth more than \$2 million in media value. The single made headlines internationally and captured the attention of international tourists. It attracted coverage in the United Kingdom, United States, Canada, Malaysia, Singapore, India, and Jamaica, sparking international interest in Adelaide Zoo.

In December, Adelaide Zoo became the first zoo in Australia to use iBeacon technology to develop and launch an app. The app essentially puts a keeper in the palm of every visitor's hand and transforms the traditional zoo experience.

Market research conducted through research agency, Square Holes included online surveying and focus groups, and provided valuable insights into our members, visitors and the wider general public.

The marketing team also worked with renowned artists Gillie and Marc to bring Shandu the 'upside down' rhino to Monarto Zoo. Designed to raise awareness of the plight of rhinos in the wild, Shandu has become an incredibly popular installation and tool to engage visitors.

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Shandu / Image credit Geoff Brooks





# Fundraising

This year, individual fundraising support was received from 19,348 households, up from 16,081 in 2016. These households have supported us as members, animal adopters and donors. Many have been loyal supporters for a number of years, however we have also experienced strong growth in new supporters with 6,508 households joining us for the first time this year, up from 5,996 in 2016.

Zoos SA aligns itself with corporate partners that are respected within their industries, have a strong community focus and are committed to a sustainable future for our natural world. Corporate partners provide both cash and in-kind support for a number of projects and programs across both sites and we are grateful for their ongoing support. We also acknowledge the annual funding support provided by the South Australian State Government, and the significant contribution from Westpac in their final year of support as our Principal Partner.

Key highlights for 2016 include the launch of Zoos SA's Memorial program in partnership with Centennial Park, giving supporters the unique opportunity to remember their loved ones at Adelaide and Monarto Zoos; Websters Lawyers sponsorship of the Animal Health Centre at Adelaide Zoo; a significant grant secured from Beach Energy to fund the development of Adelaide Zoo's iBeacon app; our new fleet of Zoobaru kids cabs at Adelaide Zoo sponsored by Jarvis Subaru and the Sentek Soil analysis technology and water station installed at Monarto Zoo

FUNDRAISING ACTIVITY	2016/17 \$	2015/16 \$	VARIANCE
Corporate Sponsorship (cash)	\$973,675	\$689,519	\$284,156
Corporate Sponsorship (in kind)	\$674,730	\$1,302,682	-\$627,952
Major Gifts	\$146,250	\$148,550	-\$2,300
Appeals and Donations	\$151,578	\$129,063	\$22,515
Animal Adoption	\$172,055	\$168,540	\$3,515
Sundry Income	\$0	\$0	\$0
Bequests	\$171,901	\$752,500	-\$580,599
Total	\$2,290,189	\$3,190,854	-\$900,665

Kytons Bakery is proud to be a sponsor of both the Ringtail Possum in the nocturnal house and the Halloween event “Boo at the Zoo”. The Ringtail Possum sponsorship is in honour of “Hush” from Mem Fox’s wonderful Possum Magic and “Boo” gives us the opportunity for us and our staff (and mascot!) to interact with thousands of kids and parents at a really fun event.

– Kytons Bakery.



Tasmanian Devil / Image credit Dan Schultz



Blue and Gold Macaw / Image credit: Adrian Mann

## MEMBERSHIP

Zoos SA reached a record 46,000 members in May, supported by strong renewal rates of 75%. This equates to a 23% growth in membership income compared to the previous year. Our free Cub membership has also proven to be popular with 4,034 little cubs joining the Zoos SA family. Zoos SA also welcomed 268 new life members this year, increasing our life member base to 2,887.

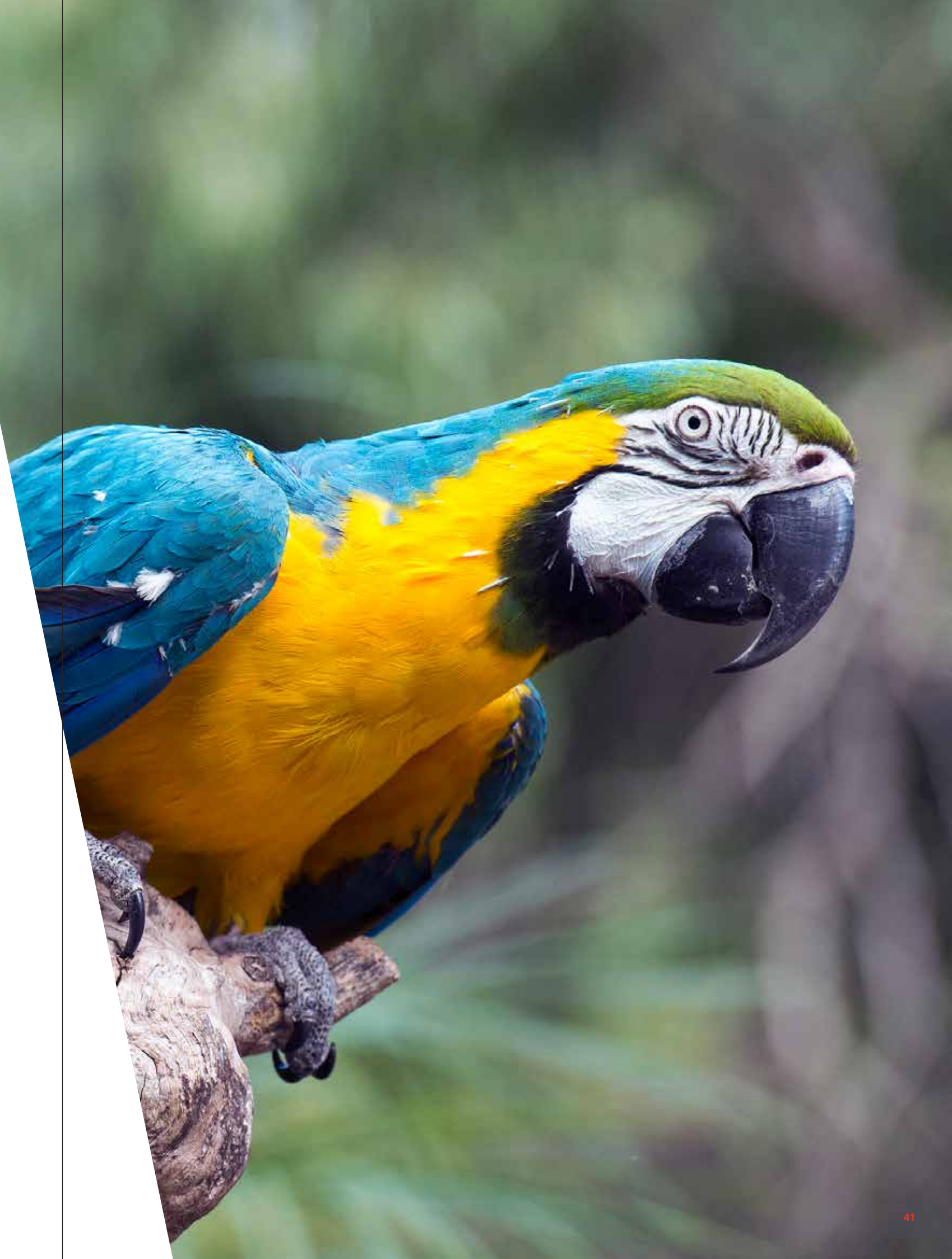
MEMBERSHIP NUMBERS	2016/17	2015/16	VARIANCE
Companion, Honorary Associates and Conservation Friends	35	35	-
Life Members	2,887	2,619	268
Annual Members	41,565	37,494	4,071
Group Members	2,185	2,382	-197
<b>Total Members</b>	<b>46,672</b>	<b>42,530</b>	<b>4,142</b>

MEMBERSHIP INCOME	2016/17 \$	2015/16 \$	VARIANCE
Annual Membership	\$2,988,177	\$2,388,553	\$599,624
Life Membership	\$528,607	\$477,716	\$50,891
<b>Total</b>	<b>\$3,516,784</b>	<b>\$2,866,269</b>	<b>\$650,515</b>

**“I believe that the human race has a responsibility to care for all other life forms on this planet. Zoos are an important educational channel to foster kindness and inquisitiveness about our animals, particularly among children who are our future. I am proud to sponsor the Blue and Gold Macaws, who are important ambassadors for their species and all birds, via the free flight program.”**

– Sue Gredley – Blue and Gold Macaw adopter





# Visitor Experience

The 2016/17 financial year saw Zoos SA further expand the brief animal encounters range at Adelaide Zoo, with the addition of the Meerkats Encounter and Penguins in Person in September 2016. Both encounters have been popular additions to the encounter offering.

On 13 January 2017, Zoos SA held its first Rhino Gala fundraiser at Adelaide Zoo to help raise vital funds for the infrastructure required in preparation for arrival of the insurance population of White Rhino at Monarto Zoo. The night was a great success with 269 guests attending and over \$100,000 net profit raised from the event. Special guests for the night were the voice of cycling, Phil Liggett and Olympic cyclist, Anna Meares.

In September 2016, Zoos SA launched its new Galaxy ticketing system. This investment will ensure Zoos SA continues to meet customer expectations and increase revenue opportunities into the future. Further development of the system is scheduled for 2017/18.

Adelaide Zoo commissioned the development of new Zoobaru children's vehicles to replace the previously contracted Kidz Kabz. The Zoobarus, sponsored by Jarvis Subaru, were introduced in January 2017. The Zoobarus have proven to be very popular and have provided additional fundraising income for Zoos SA.

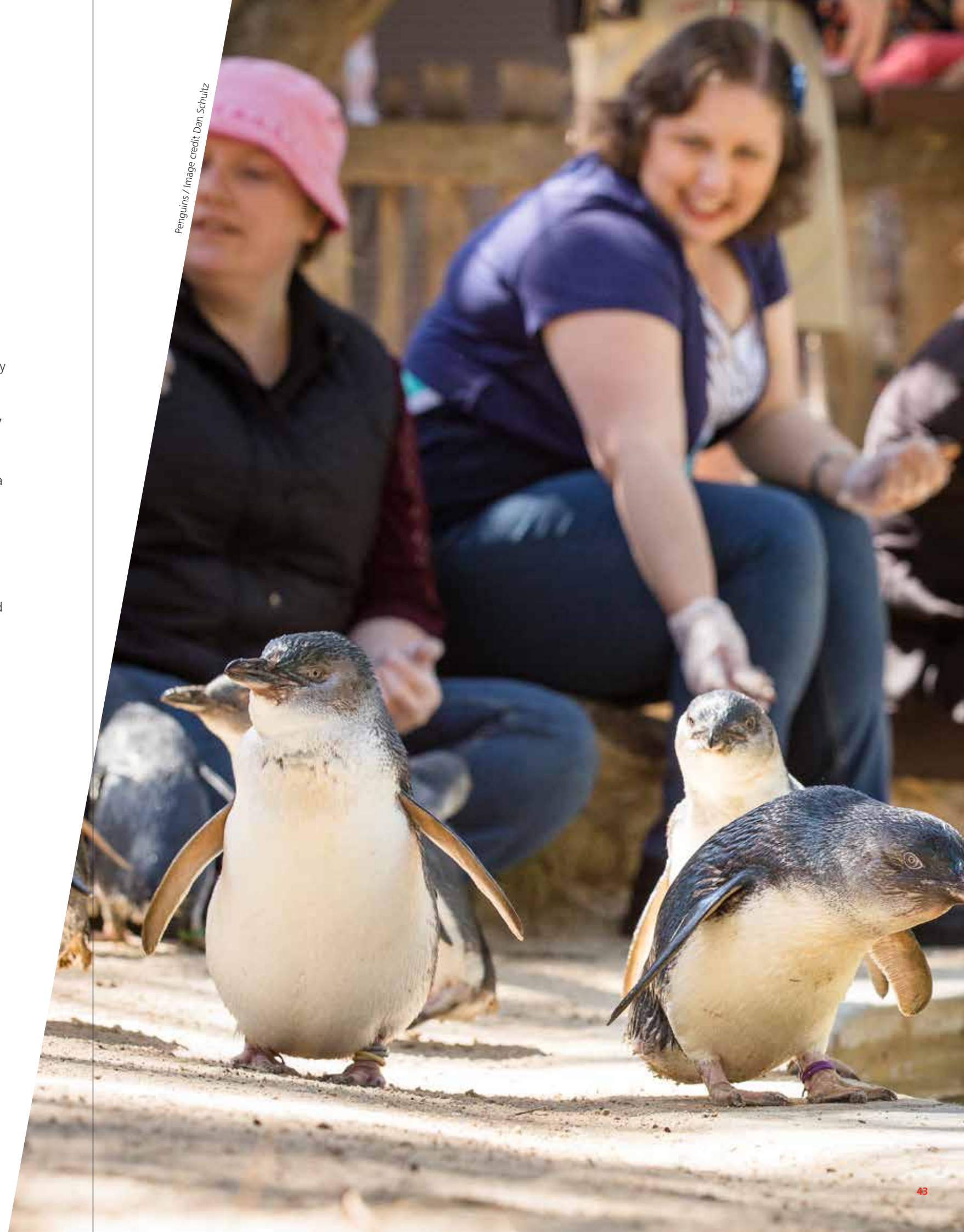
Early in 2017, Zoos SA undertook an independent Tourism Inclusivity Audit of Adelaide and Monarto Zoo to assess existing services and facilities and explore how to make our sites more inclusive to visitors of varying abilities.

Zoos SA proudly donated approximately \$34,850 in free-of-charge admissions tickets and behind the scenes animal experiences and encounters in 2016/17 to a number of South Australian community groups and charitable organisations. Zoos SA participated in a number of community events offering discounted entry rates, including a special children's Christmas party and Playgroup SA Day.

In 2016/17, more than 46,000 people attended functions across Adelaide and Monarto Zoos.

**Zoos SA held its first Rhino Gala fundraiser at Adelaide Zoo to help raise vital funds for the infrastructure required in preparation for arrival of the insurance population of White Rhino at Monarto Zoo.**

Penguins / Image credit Dan Schultz





TOTAL ATTENDANCES FOR THE LAST FIVE YEARS\*

16/17	15/16	14/15	13/14	12/13
585,872	566,397	527,500	516,759	456,067

MONARTO ZOO	2017	2016	VARIANCE
Admissions	74,695	71,607	4.3%
Education	11,990	11,416	5%
Members	32,034	35,893	-10.7%
Other	11,316	14,783	-23.4%
Total	130,035	133,699	-2.7%

ADELAIDE ZOO	2017	2016	VARIANCE
Admissions	215,173	198,003	8.9%
Education	47,856	46,656	2.6%
Members	146,087	151,641	-3.7%
Other	46,721	36,398	28.4%
Total	455,837	432,698	5.4%

\*These figures capture total ticketed admissions and exclude any additional functions and events e.g. – weddings, corporate events, Boo At The Zoo.

SPECIAL ADMISSIONS PRICE OFFERS

Zoos SA provided a range of special offers over this year to offer great access to both zoos:

There have been a range of special offers over this year to provide greater accessibility to both zoos:

Mother’s Day – Mums Go Free.

Father’s Day – Fathers Go Free.

Provision of free child pass with Out of School Hours Care visits to encourage repeat visitation.

Half price entry on the afternoon of the Special Children’s Christmas Party.

Two Zoos Pass (offering 50% off the visit to the other zoo – Adelaide Zoo or Monarto Zoo – if purchased on day of visit).

Entertainment Book – a voucher for each site included in 2016/17 Entertainment Book offering 25% off entry for up to four people.

Disadvantaged group prices.

Special days for community groups and other charities such as Paraquad Days, Alzheimer’s Association, Special Children’s Christmas Party and Playgroup Day.

KEY EVENTS AND ACTIVITIES

BOO AT THE ZOO

Halloween came alive at Adelaide Zoo again this year with our popular family-friendly Boo at the Zoo event which was held on 28 October, 2016. Six treat stations were offered, sponsored by Blackebys Sweets, Adelaide Central Market, SA Water, Kytos Bakery, Robern Menz and GU Film House. The evening also featured a variety of entertainment, from children’s singing and dancing on the central lawns, to pumpkin treats for many of the zoo residents. The event sold out, with 3750 tickets sold.

WESTPAC TEDDY BEARS’ PICNIC

Adelaide Zoo again celebrated Wang Wang and Fu Ni’s birthday in August 2016 with the annual Westpac Teddy Bears’ Picnic. Guests enjoyed a range of activities, including a bear quest trail, teddy bear health checks with St Johns, Asthma SA and North Adelaide Dental Care, Zoofit animal cycles, face painting in Nature’s Playground by Youth At The Zoo (YATZ), a guess the gummi bear competition, children’s entertainment, the City of Adelaide Band and bear themed craft activities.

WESTPAC FATHER’S DAY AND MOTHER’S DAY

Zoos SA partnered with The Advertiser and Sunday Mail to offer mums and dads the chance to visit Adelaide and Monarto Zoo for free on mother’s and father’s day. Mums and dads also received free Haigh’s Chocolates and massages on their special day, while younger guests were treated to children’s craft activities.

SCHOOL HOLIDAYS

Winter 2016 saw Zoos SA celebrating all things ‘Big and Small’ with the arrival of Obi the Pygmy Hippo at Adelaide Zoo. Children visiting Adelaide Zoo were given a handout of Obi’s face with information regarding some of the smaller residents at the zoo, while at Monarto Zoo they received a lion face with information regarding the biggest residents. Children visitors were also encouraged to go on a treasure hunt using clues to find hidden “animals”.

During the Spring 2016 school holidays themed ‘Biomechanics’, children were encouraged to learn about all things robotic at Zoos SA. Children were given a small booklet with information

regarding five animals and went on a hunt to find robotic replicas of different animal features. Each of these robotic sections were built by Monarto Zoo staff and replicated out of recycled materials and placed onsite for children to interact with and view.

After the success of Dinosaurs Alive in 2013/2014, for the 2016/2017 Summer school holidays, Adelaide Zoo displayed seven prehistoric animatronic dinosaurs around the zoo, including a 15 metre Tyrannosaurus. Over this period, Adelaide Zoo received 99,279 visitors, and achieved its highest ever January

visitation, exceeding the previous highest in January 2009 with the arrival of the Giant Pandas.

The April 2017 school holidays focused on creating superheroes out of our little visitors! Children were encouraged to learn about Zoos SA’s conservation ‘Zoooperheroes’ as they journeyed around our sites.

A wide range of additional Keeper Talks and Nature Theatre Presentations were also offered at both zoos during each school holiday period.

Zoobaru, proudly supported by Jarvis Subaru

Zoobarus / Image credit Ryan Thomas





# An Advancing Organisation



## OUR PEOPLE

### STAFF

Zoos SA's passionate and capable workforce recorded many positive achievements through the 2016/17 financial year. Through the continued implementation of the Zoos SA People Plan, we have been able to continue to build on our workforce capabilities.

Conservation passion continues to grow from strength to strength with each of us sharing and imparting Zoos SA's mission to connect people with nature and save species from extinction by engaging with our visitors to build on conservation initiatives.

### PEOPLE PLAN

The Zoos SA People Plan continued to achieve solid outcomes this year against the five key objectives within the workforce framework - attraction and retention, engagement and performance, workforce well-being, and workforce efficiency and effectiveness. Revised and new programs supported by well-developed implementation programs have enabled us to gain rewarding results and improvements.

#### Key achievements for this past 12 months have been:

Completion of Dangerous Animal Review

Completion of Duty Manager Review and Implementation (Adelaide and Monarto Zoos)

Continuing with policy development

Continuing to have significant gains in completion of Performance Development Plans (PDP)

Consultation and planning for People Plan 2017-2022

Przewalski's horse / Image credit Geoff Brooks



WORKPLACE HEALTH AND SAFETY

We are continuing to focus on the fundamentals of Workplace Health and Safety (WHS), ensuring compliance training is completed and employees are inducted. Specific training undertaken this financial year in the WHS area has been:

WHS SPECIFIC SESSIONS:

- Job Safety Analysis Writing Skills
- AZ & MZ Duty Manager Training
- Chemical Certification
- MZ Bush fire training for across site staff
- Fire arm training
- Chemical Awareness – Safety TV – 125
- Drugs and Alcohol in the Workplace – Safety TV
- Manual Handling
- Mental Health First Aid
- Knife Safety Training
- Health Safety Representative Training Levels 1, 2 & 3
- Fire Warden/ Chief Warden Training

Continuing to focus on safety with events held over Safe Work Month in October 2016, our programs of activities at both Adelaide and Monarto Zoo covered:

- Bike Safety
- Sun Smart
- Manual Handling
- Employee Assistance Program and the additional wellness programs on offer
- Safety eLearning Program

Through ongoing close management of our workers compensation liability and through early notification and intervention, this continues to drive a culture of early reporting, which in turn is providing financial benefits to the organisation in reduced costs.

The strong relationship with our fund managers, Gallagher Bassett, continues to support our results by reduction in our claims over the financial year. Our average cost per claim is \$1493.93, and we are managing to return employees to pre-injury duties on average within 2.45 days.

LEARNING AND DEVELOPMENT

A structured Learning and Development program has been driven from our Performance Development Plans (PDP). Zoos SA employees have participated in a range of training programs this financial year:

- Corporate Inductions
- Policy and procedure writing
- Chairing meetings
- Values Program for employees and volunteers
- Assertive Communication
- Mental Health First Aid
- Drug & Alcohol procedure: how to manage
- Risk management
- Kiosk for managers
- Return to Work - Work Cover responsibilities
- Running Effective Meetings
- Team Building
- Rescue at Heights

We have developed and continued partnerships with the following companies:

- Asthma SA
- SA Power Networks’ Snake awareness DVD
- Teamgage
- Frontier Solutions
- Beviss Training Solutions
- Davies Stewart Recruitment

A strong focus has been on our preparedness to respond in case of an emergency and we have been building and testing our skills through:

- Rolling drill schedule
- Quarterly meetings – Duty Managers at both sites
- Evacuation Planning Advisory Group

This has been supported by the continual review and establishment of best practices procedures in:

- PDP reporting & filing
- First Aid
- Emergency Management

PERFORMANCE DEVELOPMENT PLANS

Our effectiveness in the PDP process continues to grow and improve, with two PDP reviews conducted each financial year and more than 99% of our workforce having a current PDP. Organisational values continue to be part of the program to explore how our employees demonstrate organisational values in their day-to-day working life, documenting how they conduct themselves and support overall visitor experience at our sites.

SOCIAL CLUB

The Zoos SA Social Club has 78 financial members, with an increase of Monarto Zoo-based members in the last year.

Social Club Committee objectives include:

- Offering a range of different activities including support for conservation events;
- Increasing membership of the Social Club at Monarto Zoo;
- Maintain a Social Club calendar to ensure a spread of events across the year.

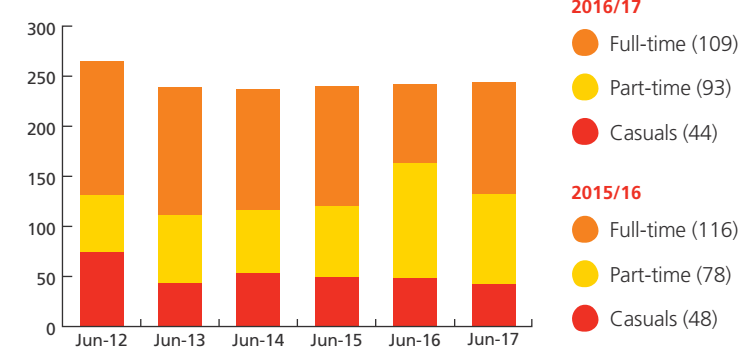
The Social Club Committee holds monthly meetings. A sub-committee was established this year, with two new members to assist in planning and organising events closer to Monarto.

Activities in the 2016/17 year included:

- After work dinner at Bar Torino
- Christmas Dinner at Miss Perez
- Supplied ice creams and zooper doopers during the hot weather
- We escaped the room at Adventure Rooms
- Easter goodies to members
- Bowling and Laser Tag Night at King Pin Bowling Norwood
- Bowling and Dinner at Murray Bridge
- After work catch up at Hackney Hotel

All events organised are open for all to attend and really positive feedback has been received from events held.

EMPLOYEE STATISTICS



EMPLOYEES PER DEPARTMENT AS OF 30 JUNE 2017	FULL TIME	PART TIME	CASUAL	TOTAL
Business Operations	19	30	37	86
Corporate Services	6	6	1	13
Life Sciences	62	53	5	120
Property and Development	19	3	1	23
People and Performance	3	1	0	4
Total	109	93	44	246

Porcupine / Image credit Geoff Brooks





# Volunteers

Zoos SA's 500-strong volunteer group forms an indispensable part of the zoo family and supports a variety of activities within the zoo and beyond.

As a conservation charity, our volunteers play a vital role in helping us in our mission to save species from extinction and connect people with nature.

2016/17 was another busy year in the Zoos SA Volunteer Program. In addition to the 500 volunteers who are already part of our zoo family, we have received almost 400 new queries in 2016/17. We promoted more than 100 opportunities to our new volunteers across 17 programs within the zoo. Our theme for 2016/17 in line with Volunteering SA and NT has been "Live Happy – Give Happy", highlighting the huge benefits in physical and mental well-being when you are engaged in your community and actively volunteering.

Our volunteers generously donated their time, energy and expertise to make a meaningful difference, supporting us to deliver our vital conservation message to all our visitors. Volunteers at Zoo SA have contributed in excess of 130,000 hours over the past year

Investing in our volunteers is important to us. We seek to provide a rewarding volunteer experience by:

- Matching volunteers to roles.
- Providing volunteers with training and development opportunities.
- Connecting volunteers to our mission and values.
- Celebrating our volunteer's achievements. Our aim is to engage people in volunteering opportunities that are mutually beneficial, enhance our work and support our conservation goals.

## KEY HIGHLIGHTS

The total fundraising efforts from volunteer activities resulted in \$41,094 being raised for zoo projects. Grant money contributed to the development of a new African-crested Porcupine and Meerkat exhibit at Monarto Zoo, the purchase of the 'Shandu' rhino sculpture at Monarto Zoo and a computer for volunteer off-site speaking presentations.

The Annual President's Award for Volunteer of the Year was presented during National Volunteer Week Celebrations which were attended by His Excellency the Honourable Hieu Van Le AC, Governor of South Australia. This year's well-deserving recipient was Bruce Laity.

We thank our volunteers for their commitment, passion and vital contributions to our conservation work.

Volunteers / Image credit Adrian Mann





# Property and Development Restructure

Zoos SA is a charitable conservation society that exists to connect people with nature and save species from extinction.

Zoos SA also developed a 20-year Master Plan (Zoos SA Master Plan 2015-2035) to set a vision for the transformation of both Adelaide and Monarto Zoos through an extensive organisational wide capital works program that will represent significant investment on the corporate balance sheet.

These facilities (both current and proposed) must be properly maintained in order to remain fit for purpose to support the operational and strategic needs of the business which fulfil Zoos SA's mission and vision and protect investment.

To ensure the appropriate management of both new capital development and infrastructure maintenance, Assets and Horticulture, previously reporting to Life Sciences, has been restructured to report to a newly appointed Director for Property and Development. The restructure has also addressed alignment of sustainability initiatives that resided with Corporate Services to now form part of the Property and Development portfolio.

The objective of the restructure is to have a consistent and strategic approach to the management, planning and delivery of capital development and facility maintenance.

Ultimately, the restructure will serve to underpin a sustainable capital base reflective of long term objectives and resources. This represents a shift of focus from traditional maintenance to management of assets, and hence planning and management of capital requirements above shorter term maintenance cycles. Importantly, it also underpins maintaining the significant value of the property assets to the corporate balance sheet and better manages life-cycle planning. Strategically, it links across broader corporate strategy, organisational, functional and financial planning.

Hyacinth Macaw / Image credit Adrian Mann





# Sustainability

As an organisation, we are committed to working ethically and sustainably while influencing others to follow our example.

With our business's reliance on natural resources and as leaders in species conservation and environmental education, we are in a unique position to showcase environmental sustainability and inspire our visitors to take action in their own lives.

To achieve this, we have been managing our inputs and waste to lighten our environmental footprint and linking our actions with conservation messages and icons. We have also been engaging with key organisations such as SA Water, SENTEK, Veolia, the office of Green Industries and the University of South Australia.

## SUSTAINABILITY

Zoos SA Environmental Management Plan (EMP) continues to deliver positive outcomes by integrating sustainability into its everyday business operations. The EMP is closely aligned with the Zoos SA Strategic and Business Plans and contains direction for targeting key sustainability objectives and setting yearly goals through to 2017.

## HIGHLIGHTS OF THE YEAR:

Key highlights for the year were the acquisition of ISO accreditation for Environmental Management Systems 14001 and Greenhouse Gas Carbon Managed 14064. Zoos SA also gained the tourism industry Advanced ECO Accreditation. The acquired accreditations celebrate Zoos SA's commitment to sustainability and conservation.

## WASTE:

Resource recovery yet again increased by a modest 1.8%, which brings our recycling rate to 86.7%, just 0.3% short of our Business Plan KPI for an 87% diversion of waste from landfill. This is a great result and something that we should all be proud of.

## WATER:

Mains water usage for the year has reduced by 17.9 % compared to 2015/16. The reduction in consumption can be attributed to a number of factors such as significantly increased rainfall and consumption reduction activities such as the SENTEK irrigation soil moisture sensing program which has seen water application reductions on our central lawn. The SA Water Smart Water monitoring portal also continues to support our water management activities by supplying real-time consumption trend data for the detection of leaks and anomalies.

SENTEKs recent sponsorship renewal has seen a further expansion of their program, soil moisture sensing hardware has recently been deployed at Monarto's browse plantation which has recently been substantially replanted and is going to be the basis for a scientific case study on the growth of Acacia and water application. SENTEK have also provided a weather station at Monarto which will give real time local weather data.

It should be noted that resource monitoring, water saving initiatives and collaboration with key organisations have over the last seven years led to significant water savings across both properties. Zoos SA has managed an average of 19.6% reduction in mains water consumption over the last seven years.

## ENERGY:

Energy consumption for this year has reduced by 2%.

The AGL Solar Power Purchasing Agreement which placed 220kWh of solar generation across both sites is performing as expected. The 2016/17 financial year saw 270,000kWh of energy produced just 17% short of engineered full capacity; the reason for the shortfall was a delay in commissioning at Monarto which only saw energy production for nine months of the year. Renewable energy currently accounts for 18% of our total electricity consumption and is expected to increase to 20% upon full generation capacity.

This year also saw the adoption of an AGL proposal for a strategic LED lighting upgrade across both properties which are expected to further reduce electricity consumption and carbon emissions.

The security and cost of electricity supply has a significant impact on Zoos SA and this financial year saw the investment of \$50,000 to purchase electricity supply infrastructure at both Adelaide and Monarto Zoos to ensure we can continue to operate in times of extended interruptions of power supply.

## CARBON:

Zoos SA is committed to reducing its carbon footprint and in 2014, a reporting framework was established to measure our carbon emissions.

Our carbon emissions have further reduced by 180 tco2- (11%) over last year. The reductions can mainly be attributed to the adoption of the AGL Solar Power Purchasing agreement. Further reductions are anticipated with the roll out of the AGL LED lighting upgrade which will place us in good stead to achieve our 25% renewable energy target by 2018.



Wang Wang, Giant Panda / Image credit Adrian Mann



# Property & Development

A continued focus to maintain and upgrade facilities over the past twelve months has seen great outcomes for both departments.

The Assets and Horticulture teams across both sites have again been able to deliver very good results with 74 completed capital projects and numerous maintenance requests resulting in a very successful year.

## KEY HIGHLIGHTS:

### Assets

The Southeast Asian boardwalk decking replacement and White-cheeked Gibbon night quarters re-roof were completed.

Meerkat exhibit modifications to facilitate a new encounter.

African Wild Dog exhibit converted to Maned Wolf exhibit with modifications to fencing and slides as well as re-landscaping.

New Anaconda heating installed in reptile house.

Solar panel installations were completed on a majority of the roof space throughout the zoo.

Replacement of parrot block aviary colorbond roof.

Construction of a new Children's Zoo off-limits shelter.

Installation of new roofing over the Goodfellow's Tree Kangaroos exhibit.

New wetlands boardwalk installed to replace existing walkway that had become a WHS issue.

Cameras were installed at Giant Pandas and Sumatran Orangutans.

Nocturnal House storm damage remediation which included new internal ceiling and replacement of guttering and sections of the roof.

Fig Tree Café replacement of sash windows and repairs to gyprock after severe storm damage.

Installation of two 80Kva generators, one at Adelaide and one at Monarto to ensure minimal disruption during power outages.

Extensions to tamarin overhead raceways to now incorporate Emperor Tamarins exhibit.

Design and construction of a penguin presentation and encounter jetty.

Shade sail install at Enviro Dome to facilitate outdoor presentations.

AHC External Yard development to enable quarantine animals all weather holding yards.

New lion den access/slide.

Solar panel installation at Monarto Zoo Visitor Centre.

Installation of play equipment as part of stage 1 playground at Monarto Zoo.

Design and construction of a new porcupine and Meerkat exhibit

Design and installation of new gas heating in chimp exhibit.

Communications tower installation for upgrading of connectivity across Monarto and Wild Africa sites.

Fabrication and installation of public shelters at behind the scenes areas at lions and hyenas.

Installation of a fire protection system at the waterhole pavilion as part of an ongoing role out.

New concrete feed pads installed at rhino, Red Deer, and Giraffe.

Rhino sculpture installation.

### Horticulture

Bolivar browse plantation cleared ready for irrigation and planting of native browse to expand our current browse supplies across both sites.

Exhibit modifications to facilitate a new Meerkat Encounter, including complete exhibit meshing and installation of sand substrate, hot wires and new plantings.

Renovation of African Wild Dog exhibit to new Maned Wolf exhibit by modifications to exhibit and plants and Ash tree removal.

Established a new cacti/succulent garden next to Seal Bay adjacent Maned Wolf exhibit.

Purchase and planting of advanced trees to provide better shade coverage to Nature's Playground.

Removal of Erythrina trees species that were inspected and deemed unsafe across the zoo site.

Replanting of the front entrance green wall with hardy natives tolerant to low light.

Removal of Jacaranda tree in the middle of the Central Lawn after it was inspected and deemed unsafe.

Removal of Melia (White Cedar) at Tamarin to reduce further damage to the building.

Assets and Horticulture teams across both sites have again been able to deliver very good results with 74 completed capital projects

Nature's Playground / Image credit Dan Schultz





# Information and Communication Technology

The 2016/17 financial year saw many changes and improvements in the area of Information and Communications Technology for Zoos SA.

## KEY HIGHLIGHTS

New server and storage infrastructure was installed. This equipment will allow Zoos SA to continue to develop and implement new technology solutions. One of our first projects will be the redevelopment of our organisational intranet. This will create a central point of contact for important policy and procedure information and allow for the automation and digitisation of many of Zoos SA's processes currently performed manually. Our new infrastructure also improves Zoos SA's Disaster Recovery ability and allows for greater offsite backup and archiving.

A complete ICT review was performed across both sites including desktop, server and communications hardware.

A communications tower was installed at Monarto Zoo. This tower serves as a central point for wireless communications including our Local Area Network and the staff two-way radio network.

Black-flanked Rock-wallaby / Image credit Dan Schultz





# Financial Statements

Zuri the Chimpanzee / Image credit Dan Schultz

## ROYAL ZOOLOGICAL SOCIETY OF SOUTH AUSTRALIA INC. EXTRACTS FROM THE AUDITED FINANCIAL STATEMENTS

### STATEMENT OF PROFIT OR LOSS AND COMPREHENSIVE INCOME

FOR THE YEAR ENDED 30 JUNE 2017

	2017 \$	2016 \$
<b>REVENUE</b>		
Admissions, Membership and Other Revenue	17,261,997	16,634,905
Grants	7,285,186	7,359,830
Sundry Sales/Income	293,767	312,330
Bequests	171,901	752,500
<b>Total Revenue</b>	<b>25,012,851</b>	<b>25,059,565</b>
<b>EXPENSES</b>		
Salaries, Wages & On-Costs	(13,471,627)	(12,795,070)
Animal Care	(801,976)	(741,794)
Maintenance Consumables	(1,452,870)	(1,375,581)
Cost of Sales	(674,049)	(624,731)
Conservation & Research Projects	(1,644,677)	(1,849,257)
Utilities	(486,733)	(555,994)
Marketing & Promotion	(839,954)	(900,106)
Tours & Experiences	(1,173,709)	(983,985)
Depreciation	(2,442,831)	(2,481,407)
Other Expenses	(1,528,174)	(1,563,174)
<b>Total Expenses</b>	<b>(24,516,600)</b>	<b>(23,871,099)</b>
<b>Surplus from operating activities</b>	<b>496,251</b>	<b>1,188,466</b>
Finance Income	76,045	83,412
Finance Expenses	(327,864)	(344,935)
<b>Net Financing Expense</b>	<b>(251,819)</b>	<b>(261,523)</b>
<b>Surplus for the Period</b>	<b>244,432</b>	<b>926,943</b>
<b>Other Comprehensive Income/Expense</b>		
<b>Items that will never be reclassified to profit or loss</b>		
Change in fair value of financial assets at fair value through other comprehensive income	31,032	(15,226)
<b>Total Other Comprehensive Income / (Loss) for period</b>	<b>31,032</b>	<b>(15,226)</b>
<b>Total Comprehensive Income for period attributable to members</b>	<b>275,464</b>	<b>911,717</b>



STATEMENT OF FINANCIAL POSITION

AS AT 30 JUNE 2017

	2017 \$	2016 \$
<b>CURRENT ASSETS</b>		
Cash and Cash Equivalents	3,883,337	1,581,423
Receivables and Prepayments	924,277	551,809
Inventories	508,555	478,884
<b>Total Current Assets</b>	<b>5,316,169</b>	<b>2,612,116</b>
<b>NON CURRENT ASSETS</b>		
Financial Assets at Fair Value	476,601	509,298
Property, Plant and Equipment	46,921,465	47,497,431
<b>Total Non Current Assets</b>	<b>47,398,066</b>	<b>48,006,729</b>
<b>Total Assets</b>	<b>52,714,235</b>	<b>50,618,845</b>
<b>CURRENT LIABILITIES</b>		
Current Liabilities	4,254,342	2,797,758
Income in Advance	3,227,356	2,352,279
Loans and Borrowings	6,111,904	6,600,285
Employee Benefits	3,148,401	2,811,276
<b>Total Current Liabilities</b>	<b>16,742,003</b>	<b>14,561,598</b>
<b>NON CURRENT LIABILITIES</b>		
Loans and Borrowings	1,431,910	1,735,985
Employee Benefits	228,889	285,293
<b>Total Non Current Liabilities</b>	<b>1,660,799</b>	<b>2,021,278</b>
<b>Total Liabilities</b>	<b>18,402,802</b>	<b>16,582,876</b>
<b>Net Assets</b>	<b>34,311,433</b>	<b>34,035,969</b>
<b>Reserves and Funds</b>		
Reserves	8,351	(22,681)
Retained Funds	34,303,082	34,058,650
<b>Total Equity</b>	<b>34,311,433</b>	<b>34,035,969</b>

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 30 JUNE 2017

	2017 \$ INFLOWS (OUTFLOWS)	2016 \$ INFLOWS (OUTFLOWS)
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
<b>Receipts</b>		
Receipts from customers	16,051,776	14,469,033
Donations, Bequests and Sponsorships	1,891,623	2,827,837
<b>Payments</b>		
Wages and Salaries	(13,137,536)	(12,598,634)
Suppliers	(6,757,686)	(7,098,995)
Conservation & Research Projects	(391,193)	(502,637)
<b>Net Cash Provided by/(Used in) Operating Activities</b>	<b>(2,343,016)</b>	<b>(2,903,396)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Purchase of Property, Plant and Equipment	(1,866,865)	(2,920,264)
Sale/(Purchase) of Shares and Investments	63,729	(29,511)
Interest and dividends received	76,045	83,412
<b>Net Cash Provided by/(Used in) Capital and Investing Activities</b>	<b>(1,727,091)</b>	<b>(2,866,363)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Net State Government Grants Received	5,604,161	5,485,982
Net Other Grants Received	1,888,180	1,742,896
Repayment of Borrowings	(792,456)	(116,581)
Payment of Interest	(327,864)	(344,935)
<b>Net Cash Provided by Financing Activities</b>	<b>6,372,021</b>	<b>6,767,362</b>
<b>Net (Decrease)/Increase in Cash Held</b>	<b>2,301,914</b>	<b>997,603</b>
<b>Cash at the Beginning of the Year</b>	<b>1,581,423</b>	<b>583,820</b>
<b>Cash at the End of the Year</b>	<b>3,883,337</b>	<b>1,581,423</b>



ROYAL ZOOLOGICAL SOCIETY OF SOUTH AUSTRALIA INC.  
EXTRACTS FROM THE AUDITED FINANCIAL STATEMENTS

REVENUES AND EXPENSES

FOR THE YEAR ENDED 30 JUNE 2017

	2017				2016	
	ADELAIDE ZOO	MONARTO ZOO	SOCIETY	FUNDRAISING	TOTAL	TOTAL
	\$	\$	\$	\$	\$	\$
REVENUE						
Admissions	5,353,752	1,934,419	-	-	7,288,171	7,173,683
Education	806,178	181,486	-	-	987,664	910,123
Sponsorship	219,287	13,972	496,060	947,773	1,677,092	2,035,989
Bequests	-	-	-	171,901	171,901	752,500
Donations	-	262	1,716	539,797	541,775	537,750
Membership	-	-	3,279,408	-	3,279,408	2,947,916
Retail Sales	1,129,930	366,756	-	-	1,496,686	1,430,553
Catering Sales	587,211	65,683	-	-	652,894	541,040
Tours Income	672,150	216,772	-	-	888,922	726,632
Events	340,480	-	-	108,905	449,385	331,219
Sundry Sales/Income	118,880	41,508	87,386	45,993	293,767	312,330
Grants	9,200	9,032	7,178,954	88,000	7,285,186	7,359,830
Total Revenue	9,237,068	2,829,890	11,043,524	1,902,369	25,012,851	25,059,565
EXPENSES						
Salaries, Wages & On-Costs	6,096,922	2,885,596	4,278,324	210,785	13,471,627	12,795,070
Animal Care	242,958	327,296	231,722	-	801,976	741,794
Maintenance Consumables	1,065,811	258,622	128,437	-	1,452,870	1,375,581
Cost of Sales	513,059	160,990	-	-	674,049	624,731
Conservation & Research Projects	-	-	1,644,677	-	1,644,677	1,849,257
Utilities	369,014	117,719	-	-	486,733	555,994
Marketing & Promotion	38,153	167	762,450	39,184	839,954	900,106
Tours & Experiences	384,293	787,167	2,249	-	1,173,709	983,985
Depreciation	-	-	2,442,831	-	2,442,831	2,481,407
Other Expenses	338,958	80,701	1,028,522	79,993	1,528,174	1,563,174
Total Expenses	9,049,168	4,618,258	10,519,212	329,962	24,516,600	23,871,099

ROYAL ZOOLOGICAL SOCIETY OF SOUTH AUSTRALIA INC.  
EXTRACTS FROM THE AUDITED FINANCIAL STATEMENTS

STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 30 JUNE 2017

	FAIR VALUE RESERVES	RETAINED FUNDS	TOTAL EQUITY
	\$	\$	\$
Balance at 1 July 2015	(7,455)	33,131,707	33,124,252
Profit/(Loss) for the period	-	926,943	926,943
OTHER COMPREHENSIVE INCOME			
Change in fair value of financial assets at fair value through other comprehensive income	(15,226)	-	(15,226)
Total Other Comprehensive Income/(Expense) for period	(15,226)	-	(15,226)
Total Comprehensive Income/(Expense) for period	(15,226)	926,943	911,717
Balance at 30 June 2016	(22,681)	34,058,650	34,035,969
Balance at 1 July 2016	(22,681)	34,058,650	34,035,969
Profit/(Loss) for the period	-	244,432	244,432
OTHER COMPREHENSIVE INCOME/(EXPENSE)			
Change in fair value of financial assets at fair value through other comprehensive income	31,032	-	31,032
Total Other Comprehensive Income/(Expense) for period	31,032	-	31,032
Total Comprehensive Income/(Expense) for period	31,032	244,432	275,464
Balance at 30 June 2017	8,351	34,303,082	34,311,433

The financial report for the year ended 30 June 2017 has been prepared in accordance with Australian Accounting Standards, (including Australian interpretations) adopted by the Australian Accounting Standards Board (AASB) and the Associations Incorporations Act.

\*Copies of the Audited Financial Statements and Audit Opinion for the year ended 30 June 2017 are available to members at the Annual General Meeting or on our website [www.zoossa.com.au](http://www.zoossa.com.au)



# Appendices

Orang-bellied Parrot / Image credit Emma Macchia

## CITES I SPECIES MANAGED WITHIN ZOOS SA COLLECTIONS (BY CLASS, IN ALPHABETICAL ORDER BY COMMON NAME FOR EASY REFERENCE).

### Reptilia

Rhinoceros Iguana	<i>Cyclura cornuta cornuta</i>
Madagascan Tree Boa	<i>Sanzinia madagascariensis</i>
Western Swamp Tortoise	<i>Pseudemydura umbrina</i>

### Aves

Hyacinth Macaw	<i>Anodorhynchus hyacinthinus</i>
Illiger's Macaw	<i>Ara maracana</i>
Nicobar Pigeon	<i>Caloenas nicobarica</i>
Orange-bellied Parrot	<i>Neophema chrysogaster</i>
Palm Cockatoo	<i>Probosciger aterrimus</i>
Scarlet Macaw	<i>Ara macao</i>

### Mammalia

Addax	<i>Addax nasomaculatus</i>
Black Rhinoceros	<i>Diceros bicornis minor</i>
Brush-tailed Bettong	<i>Bettongia penicillata ogilbyi</i>
Cheetah	<i>Acinonyx jubatus jubatus</i>
Chimpanzee	<i>Pan troglodytes</i>
Cotton-top Tamarin	<i>Saguinus oedipus</i>
Giant Panda	<i>Ailuropoda melanoleuca</i>
Golden Lion-tamarin	<i>Leontopithecus rosalia rosalia</i>
Greater Bilby	<i>Macrotis lagotis sagitta</i>
Greater Stick-nest Rat	<i>Leporillus conditor</i>
Malayan Sun Bear	<i>Helarctos malayanus malayanus</i>
Malayan Tapir	<i>Tapirus indicus</i>
Mandrill	<i>Mandrillus sphinx</i>
Mesopotamian Fallow Deer	<i>Dama mesopotamica</i>
Nepalese Red Panda	<i>Ailurus fulgens fulgens</i>
Przewalski's Horse	<i>Equus ferus przewalski</i>
Ring-tailed Lemur	<i>Lemur catta</i>
Scimitar-horned Oryx	<i>Oryx dammah</i>
Siamang	<i>Symphalangus syndactylus</i>
Sumatran Orang-utan	<i>Pongo abelii</i>
Sumatran Tiger	<i>Panthera tigris sumatrae</i>
White-cheeked Gibbon	<i>Nomascus leucogenys</i>

## APPENDIX A CITES LISTED SPECIES

There are approximately 5,000 species of animals and more than 28,000 species of plants protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). These species are listed in one of three CITES Appendices, according to how threatened they are by international trade. Animals listed under CITES Appendix I are those species threatened by extinction. The exchange of these species is permitted only in certain circumstances. These restrictions have implications for the maintenance of CITES I species in the zoo environment, as the import of such species can be a long and expensive exercise. These species, in particular, highlight the need for effective population management, with any CITES I species required to be managed under the Department of the Environment's cooperative conservation program. Adelaide Zoo currently houses 23 species of CITES I listed animal, while Monarto Zoo maintains 9 CITES I.

## INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE LISTED SPECIES

The International Union for the Conservation of Nature (IUCN) has been assessing the conservation status of animal and plant species on a global scale for more than forty years. The categories and criteria are intended to be an easily and widely understood system for classifying species at a high risk of extinction. IUCN listed species are represented throughout most of the taxonomic groups currently held at Adelaide and Monarto Zoos.

### SPECIES WITHIN ZOOS SA COLLECTION LISTED IN IUCN CATEGORIES OF MOST CONCERN

#### Extinct in Wild

Scimitar Oryx	<i>Oryx dammah</i>
---------------	--------------------

#### Critically Endangered

Addax	<i>Addax nasomaculatus</i>
Axolotl	<i>Ambystoma mexicanum</i>
Black Rhinoceros	<i>Diceros bicornis minor</i>
Brush-tailed Bettong	<i>Bettongia penicillate ogilbyi</i>
Cotton-top Tamarin	<i>Saguinus oedipus</i>
Eastern Bongo	<i>Tragelaphus enrycerus isaaci</i>
Murray Cod	<i>Maccullochella peelii</i>
Orange-bellied Parrot	<i>Neophema chrysogaster</i>
Regent Honeyeater	<i>Xanthomyza phrygia</i>
Sumatran Orang-utan	<i>Pongo abelii</i>
Sumatran Tiger	<i>Panthera tigris sumatrae</i>
Western Swamp Tortoise	<i>Pseudemydura umbrina</i>
White-cheeked Gibbon	<i>Nomascus leucogenys</i>

#### Endangered

African Wild Dog	<i>Lycaon pictus</i>
African Grey Parrot	<i>Psittacus erithacus</i>
Australian Sea-lion	<i>Neophoca cinerea</i>
Chimpanzee	<i>Pan troglodytes</i>
Elongate Tortoise	<i>Indotestudo elongate</i>
Golden Lion-tamarin	<i>Leontopithecus rosalia rosalia</i>
Goodfellow's Tree-kangaroo	<i>Dendrolagus goodfellowi</i>
Hardyhead	<i>Craterocephalus fluviatilis</i>
Hyacinth Macaw	<i>Anodorhynchus hyacinthinus</i>
Malayan Tapir	<i>Tapirus indicus</i>
Mesopotamian Fallow Deer	<i>Dama mesopotamica</i>
Nepalese Red Panda	<i>Ailurus fulgens fulgens</i>
Northern Quoll	<i>Dasyrus hallucatus</i>
Przewalski's Horse	<i>Equus ferus przewalski</i>
Pygmy Blue-tongue Lizard	<i>Tiliqua adelaidensis</i>
Pygmy Hippopotamus	<i>Choeropsis liberiensis</i>
Ring-tailed Lemur	<i>Lemur catta</i>
Siamang	<i>Symphalangus syndactylus</i>
Southern Bell Frog	<i>Litoria raniformis</i>
Sun Conure	<i>Aratinga Soltitialis</i>
Swift Parrot	<i>Lathamus discolor</i>
Tasmanian Devil	<i>Sarcophilus harrisii</i>
White-bellied Caique	<i>Pionites leucogaster</i>
Woma Python	<i>Aspidites ramsayi</i>

#### Vulnerable

African Lion	<i>Panthera leo senegalensis</i>
Aldabra Tortoise	<i>Geochelone gigantean</i>
Australian Hooded Plover	<i>Charadrius rubricollis</i>
Brazilian Tapir	<i>Tapirus terrestris</i>
Broad-headed Snake	<i>Hoplocephalus bungaroides</i>
Chattering Lory	<i>Lorius garrulous</i>
Cheetah	<i>Acinonyx jubatus jubatus</i>
Common Hippopotamus	<i>Hippopotamus amphibious</i>
Crimson-bellied Conure	<i>Pyrrhura perlata</i>
Double-wattled Cassowary	<i>Casuaris casuaris johnsonii</i>
Ghost Bat	<i>Macroderma gigas gigas</i>
Giant Panda	<i>Ailuropoda melanoleuca</i>
Giraffe	<i>Giraffa camelopardalis</i>
Greater Bilby	<i>Macrotis lagotis sagitta</i>
Greater Stick-nest Rat	<i>Leporillus conditor</i>
Java Sparrow	<i>Padda oryzivora</i>
Malayan Sun Bear	<i>Helarctos malayanus malayanus</i>
Malleefowl	<i>Leipoa ocellata</i>
Mandrill	<i>Mandrillus sphinx</i>
Quokka	<i>Setonix brachyurus</i>
Rhino Iguana	<i>Cyclura cornuta</i>
Small-clawed Otter	<i>Aonyx cinerea</i>
Spur-thighed Tortoise	<i>Testudo graeca</i>
Yabby	<i>Cherax destructor</i>
Yarra Pygmy Perch	<i>Nannoperca obscura</i>



APPENDIX B  
PROFESSIONAL MEMBERSHIP

Zoo and Aquarium Association (ZAA) Board Member – Elaine Bensted
Wildlife Ethics Committee – Dr Ian Smith, Dr David McLelland, Dr Lynley Johnson, Kate Fielder and Mary Johnson.
Veterinary Surgeons Board of South Australia – It is compulsory for all Zoos SA veterinarians to hold this
American Association of Zoo Veterinarians – Dr Ian Smith and Dr David McLelland
Association of Reptilian and Amphibian Veterinarians – Dr Ian Smith
Association of Avian Veterinarians – Dr David McLelland
Wildlife Diseases Association – Dr Ian Smith, Dr David McLelland, Dr Jenny McLelland (Executive Member), Dr Lynley Johnson and Dr Jerome Kalvas.
Wildlife Health Australia - Dr Ian Smith, Dr David McLelland, Dr Jenny McLelland, Dr Lynley Johnson and Dr Jerome Kalvas
Zoo Animal Health Reference Group Chief Veterinary Officer appointee – Dr Ian Smith
Australian and New Zealand College of Veterinary Scientists – Dr Ian Smith (Wildlife Medicine), Dr David McLelland (Zoo Medicine; Chair of Chapter Examinations Committee for Zoo and Wildlife Medicine), Dr Lynley Johnson (Zoo Medicine), Dr Jenny McLelland (Avian Medicine)
American College of Zoological Medicine – Dr David McLelland
European College of Zoological Medicine – Dr David McLelland

Veterinary Nurses Council of Australia – Dianne Hakof
ZAA Taxon Advisory Group Veterinary Advisory Group membership – Herpetofauna/Reptiles (Dr David McLelland – Principle Veterinary Advisor), Ungulates (Dr Ian Smith), Amphibians (Dr Jerome Kalvas), Carnivores & Small Exotics (Dr Ian Smith and Dr Jerome Kalvas), Australian Terrestrial Fauna (Dr David McLelland) and Birds (Dr Jenny McLelland, Dr David McLelland and Dr Lynley Johnson)
Australian Mammal Society – Liberty Olds
Ecological Society of Australia – Liberty Olds
South Australian Herpetology Group – Phil Ainsley
ZAA Australian Species Management Plan - Gert Skipper (Committee member, Carnivore and Small Exotic Mammal TAG Co-convenor) and Jodi Buchecker (Australian Mammals TAG Co Convenor)
IUCN Species Survival Commission Conservation Planning Specialist Group – Peter Clark
The Zoo and Aquarium Association – Peter Clark and Sarah Brown
MurrayLands Industry Leaders Group – Peter Clark
Fellow of the Royal Entomological Society of London – Peter Clark
Institute of Public Administration Australia – Elaine Bensted
Fellow of the Institute of Managers and Leaders – Elaine Bensted
The Australian Rhino Project board member - Elaine Bensted
Nature Play SA board member - Elaine Bensted
International Centre of Excellence for Koala Research board member - Elaine Bensted



Hyena / Image credit Amy Atherton

APPENDIX C  
STUDBOOKS MANAGED BY ZOOS SA

Studbooks are used worldwide to effectively manage ex-situ animal populations of wild animals. Studbooks contain the registration details of each animal of a particular species in captivity, including the animals’ sex and birthdate, genetic profile, historical data and husbandry requirements. Studbook keepers maintain these databases and make recommendations for particular species in a regional capacity. Zoos SA currently manages the following studbooks:

ASMP SPECIES STUDBOOKS MANAGED BY ZOOS SA EMPLOYEES

SPECIES		TAG	STAFF MEMBER	POSITION
Black-winged Stilt	Himantopus himantopus leucocephalus	Birds	V Wilson	Species Coordinator
Bush Stone-Curlew	Burhinus grallarius	Birds	A Guinsberg	Species Coordinator
Brush-tailed Bettong	Bettongia penicillata	Native Fauna	V Wilson	Species Coordinator
Ghost Bat	Macroderma gigas gigas	Native Fauna	J Hollamby	Species Coordinator
Greater Bilby	Macrotis lagotis sagitta	Native Fauna	J Buchecker	Species Coordinator
South Australian Mainland Tammar Wallaby	Macropus eugenii eugenii	Native Fauna	J Buchecker	Species Coordinator
Southern Hairy-nosed Wombat	Lasiorhinus latifrons	Native Fauna	G Skipper	Species Coordinator
White-browedWoodswallow	Artamus superciliosus	Birds	V Wilson	Species Coordinator
Yellow-footed Rock-wallaby	Petrogale xanthopus xanthopus	Native Fauna	J Buchecker	Species Coordinator

APPENDIX D  
CONSERVATION RECOVERY TEAMS

Recovery teams are critical collaborations of government and nongovernment stakeholders and experts with a shared interest to develop and implement a recovery plan for a nationally listed species and/or an ecological community. Zoos SA is contributing both to captive and wild conservation efforts across many of these teams.

ZOOS SA STAFF REPRESENTATIVES ON SPECIES RECOVERY TEAMS

SPECIES		REGION	STAFF MEMBER
Black-flanked Rock-wallaby	Petrogale lateralis lateralis	State	B. Pohl, L. Olds, A. Guinsberg
Brush-tailed Rock-wallaby	Petrogale penicillata	National	D. Schultz, L. Olds
Greater Bilby	Macrotis lagotis sagitta	State	J. Buchecker
Malleefowl	Leipoa ocellata	National	Observer Status
Murraylands Threatened Flora	Multiple spp.	State	P. Ainsley
Orange-bellied Parrot	Neophema chrysogaster	National	P. Ainsley
Plains Wanderer	Pedionomus torquatus	National	P. Ainsley
Pygmy Blue-tongue Lizard	Tiliqua adelaidensis	State	P. Ainsley, T. Morley
Regent Parrot	Polytelis anthopeplus	State	D. McLelland
Southeast Red-tailed Black-cockatoo	Calyptorhynchus banksii graptogyne	National	L. Olds
Threatened Mallee Bird Implementation Team	Multiple spp.	National	L. Olds
Western Swamp Tortoise	Pseudemydura umbrina	WA state	P. Ainsley



APPENDIX E  
RESEARCH

We consider it a core part of our organisational activities to conduct research that seeks to advance and inform the goals of Zoos SA. Be it captive breeding, captive management, welfare, wildlife health, veterinary medicine, ecology, or education, our research activities provide outcomes both for Zoos SA and the broader conservation community. In many instances, we partner collaboratively with external organisations, and many projects are conducted by undergraduate and post-graduate research students. The volunteers in the Animal Health Centre Laboratory provide support and services to range of conservation and research projects within and beyond Zoos SA.

The Wildlife Ethics Committee (WEC) is convened jointly by the SA Department Environment Water and Natural Resources, the South Australian Museum and Zoos SA. A number of Zoos SA staff serve on the WEC, including Ian Smith (Deputy Chair), David McLelland and Lynley Johnson.

RESEARCH INTERESTS

**SA Department of Environment, Water and Natural Resources**  
Health monitoring and biotelemetry of Regent Parrots (*Polytelis anthopeplis*) in the SA Riverland

University of Adelaide

- Dena Piro, PhD Candidate: Pharmacokinetic studies of Enrofloxacin, meloxicam and Praziquantel in Tasmanian Devils (*Sarcophilus harrisii*). Planning for procedures to be carries out later in 2017.
- Wayne Boardman, PhD Candidate: Grey Headed Flying Fox disease epidemiology.
- Peri Stenhouse, PhD Candidate: Mallee fowl (*Leipoa ocellata*) in a changing climate: can we help a threatened species adapt to a drier and hotter environment?

- Chelsea Graham, PhD Candidate: Characterising the biology of Tasmanian Devil Schwann cells to advance our understanding of Devil Facial Tumour Disease.
- Jacob Maher, Honours: The Changing Conservation Role of Zoos through Time.

DVM1 Clinical Research Projects developed for commencement in Semester 2, 2017:

Evaluation of microbial and nutritional implications of different methods of soaking/sprouting seeds for psittacines.

Post-mortem assessment of the macropod heart.

Antioxidant capacity of koalas.

The microbiome of Macropod Progressive Periodontal Disease in macropods.

Characterisation of Porphyromonas isolates from the oral cavity of macropods using MALTI-TOF MS vs whole genome sequencing.

Pharmacokinetics of the antimicrobial pradofloxacin in long-necked turtles.

Clinical efficacy of pradofloxacin against *Mycoplasma agassizii* infection in tortoises.

Assessing the impact of pradofloxacin on the gut microbiome of tortoises.

Investigating enzootic interstitial pneumonia in Barbary sheep (*Ammotragus lervia*).

Flinders University

- Nicole Anderson (Zoos SA staff member), PhD candidate: Parvovirus vaccine efficacy and stress response studies in African Wild Dogs (to be submitted late 2017; Dr Ian Smith co-supervisor).
- Tara Daniels, PhD Candidate: What makes for a good translocation: A case study of the Pygmy Bluetongue.
- Lucy Clausen, PhD Candidate: Translocation as a conservation strategy: Assessing the genetic risks of admixture using the endangered Pygmy Bluetongue Lizard.

Murdoch University

- Jessica Rendle, PhD Candidate: Epidemiology of the clinical syndrome lumpy jaw in captive macropods: influence of housing and husbandry.
- Surveillance of captive tortoise populations for *Mycoplasma agassizii*.

University of Sydney

Jessica Talbot, PhD Candidate: What causes avian aspergillosis? A molecular approach to species identification.

APPENDIX F  
CONFERENCE PRESENTATIONS AND WORKSHOP ATTENDANCES

DATE	CONFERENCE, PRESENTATION AND/OR WORKSHOP	STAFF MEMBER	PRESENTATION/PAPER PRESENTED
July 2016	Australian and New Zealand College of Veterinary Scientists, Science Week	David McLelland	Lumpy Jaw in Macropods, update on investigations into pathogenesis and management.
August 2016	Zoological Information Management Systems Workshop	Ian Smith and Dianne Hakof	
October 2016	Southern Yorke Peninsula CAP	Liberty Olds	
November 2016	Wildlife Disease Association, Australasian Section	Jenny McLelland	
February 2017	Nature of SA Forum	Liberty Olds	
May 2017	Zoo and Aquarium Association Veterinary Advisory Group Face to Face	Jerome Kalvas	
May 2017	Zoo and Aquarium Association Conference at Sea World	Elaine Bensted, Peter Clark, Sarah Brown, Wayne Yorath, Jerome Kalvas and Gert Skipper	Animal Visitor Interactions presentation and Conservation Toolkit presentation, Elaine Bensted.

African Spurred Tortoise





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CONSERVATION SUPPORTERS

Alinta Energy  
Nature Foundation  
San Diego Zoo



**Zoos SA is a conservation  
charity that exists to connect  
people with nature and save  
species from extinction.**



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