

# Annual Report

## 2020-21

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## President and Chief Executive's report

It's fair to say that 2020-2021 was a challenging year. Our sites reopened in June 2020 after three months of closure but the challenges didn't end there. Instead, we became masters of adaptability and survival as we operated through restricted visitor numbers, COVID safety guidelines and South Australia's circuit-breaker lockdown of November 2020.

Our funding support through AusTrade and Jobkeeper came to an end but fortunately the Zoos SA team continued to prove itself willing to rise to the challenges. There has not been a single day of this financial year that we have been able to operate without restrictions.

Our focus after reopening was to resume bringing in members and visitors while observing the many COVID-19 measures that were put in place. As our operations continued, despite restrictions on visitor numbers, we were unable to significantly reduce our operating costs. Global pandemic or not, our amazing animals need to be fed and cared for and our sites still need to be maintained. The impact of closing and then reopening with capacity restrictions has had an obvious impact on our direct cash revenue, particularly from admissions, education, catering, retail sales, events, visitor experiences and donations.

Regardless of the evolving challenges created by a global pandemic, we have not, and will not, waiver from our urgent purpose – to connect people with nature and save species from extinction – we have become more adaptable than ever, embracing innovation and exploring opportunities.

Below are some of the innovations and achievements across our sites:

- In 2020-21, Zoos SA continued to support 15 conservation projects in Australia and provided financial support to 12 field projects internationally across Africa, China, South East Asia and the Solomon Islands. We are proud of this continued commitment to conservation.
- In May 2021, four critically endangered Orange-bellied Parrots born at Adelaide Zoo joined 32 others for release across three sites on the Victorian coast. The birds were released at the Spit Nature Conservation Reserve near Werribee, on the Bellarine Peninsula and on the northern shore of Western Port Bay.
- In February 2021, work commenced on the new Visitor Centre at Monarto Safari Park with \$15.8 million in funding from the Australian and State Governments.
- Building of onsite accommodation of a 78 room hotel at Monarto Safari Park began in April 2021. A private investor will build and operate this luxury resort and glamping facilities as part of a multi-million-dollar expansion.
- In December 2020, we celebrated 20 years of rhino conservation at Monarto Safari Park.
- We finalised plans for a lantern event at Adelaide Zoo and secured sponsorship with SA Power Networks. Tickets for Light Creatures went on sale in April 2021 as part of Illuminate Adelaide.
- We held out of hours events such as Zoo Nights and orchestra nights at Adelaide Zoo and expanded to offer Haunted Horizons Ghost Tours of Adelaide Zoo.
- We also continued to welcome life members to our wild family with life membership income up by 11% in 2020-21.

For all the difficulties of COVID and restrictions, it's clear that extinction stops for nothing. However, neither will we as species face ever greater threats at the hands of humans and we must fight harder to return some sense of balance into nature. We continue to focus on delivering conservation efforts that provide short and long-term solutions for the recovery and safeguarding of a number of different species and habitats.

While this annual report reflects on our achievements over the past twelve months, our eyes must also focus on the future. The adaptability we needed to survive must continue and we need to remain optimistic and agile within the current climate and be prepared for any eventuality. Our Board and Leadership teams have identified the following key priorities for the future few years:

- Reviewing our Strategic Plan and Conservation Directions
- COVID safety and management plans
- Financial sustainability and cash management
- Systems improvements
- Continued implementation of our Master Plan to maintain momentum including developments at both Adelaide Zoo and Monarto Safari Park
- Implementing a Reconciliation Action Plan

As we continue to adapt to operating during COVID-19, visitor restrictions and ever-changing situations the green shoots of recovery (hopefully) will emerge. We'd like to put on record our sincere thanks to the amazing staff of Zoos SA who have risen to every challenge that this pandemic has created with flexibility, humour and an absolute commitment to our purpose.

We also thank our board members for their dedication to Zoos SA over the past year and our incredible volunteers, members, corporate partners and supporters for their continued trust and support.

**Julieann Riedstra**

President

**Elaine Bensted**

Chief Executive, Zoos SA

## 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

#### **Julieann Riedstra**

##### **President**

Julieann has had a long career in the public sector in South Australia and most recently was the Deputy Chief Executive and Chief Operating Officer of the Department for Education. Julieann is a Fellow of Certified Practising Accountants (CPA) Australia and a Graduate of the Australian Institute of Company Directors (AICD). Julieann has been a member for many years and became a Life Member in 2008.

#### **Dennis Mutton**

##### **Vice President**

Dennis is an independent consultant in the fields of natural resource management, primary industries, regional growth initiatives and leadership development. He is a fellow of the AICD and holds a range of board directorships in government, business and not-for-profit organisations.

#### **Bill Spurr AO**

Bill has had an extensive career in the tourism, hospitality and event industries in South Australia. Bill was the former Chief Executive Officer of SA Tourism Commission and currently chairs the Board of Adelaide Venue Management Corporation.

#### **Prof Carol Tilt**

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

#### **David Sanders**

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

### **Kate Thiele**

Kate is the Founding Director of 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.

### **Prof Kris Helgen**

Kris is an expert on mammal evolution and conservation and serves as the Chief Scientist of the Australian Museum in Sydney. Kris was Curator in charge of mammals at the Smithsonian from 2008 – 2017.

### **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.

### **Dr Susie Robinson**

Susie is the Executive Director of the Australian Plant Phenomics Facility, one of Australia's nationally designated research infrastructures. She has worked in government and university sectors in the UK and Australia, and has significant corporate governance experience. Trained in the sciences and business management, she holds a PhD from Cambridge University.

### **Peter McCarthy**

Peter is a retired Clinical Biochemist. He and his colleague, Brian Rich, set up the laboratory in the Animal Health & Research Centre in late 1999.

In 2019 Peter was part of the six person team who won "The Unsung Hero" Award of South Australian Science.

Peter's interests lie in expanding the service that they currently offer and encouraging a greater commitment to research.

### **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. Kate is a Life Member and a Volunteer at Monarto Safari Park.

## Board Meeting Attendance

**2020 - 2021**

Board Member	Position Held	Number of meetings eligible to attend	Number of meetings attended	Comments
Julieann Riedstra	President	9	9	Commenced as President 21/11/19
Dennis Mutton	Vice President	9	9	Commenced as Vice President 21/11/19
David Sanders	Board member	9	7	
Carol Tilt	Board Member	4	4	Ended term 8/12/20
Susie Robinson	Board Member	9	8	
Kris Helgen	Board Member	9	9	
Peter McCarthy	Board Member	6	6	Board member since 8/12/20
Kate Thiele	Board Member Appointed	9	9	
Rod Buchecker	Board Member Appointed	9	7	
Bill Spurr AO	Board Member Appointed	9	7	

## Finance and Audit Sub-Committee Attendance

**2020 - 2021**

Board Member	Position held	Numbers of meetings eligible to attend	Number of meetings attended	Comments
Dennis Mutton	Chair	13	12	Commenced as Chair 23/11/2017
David Sanders	Committee member	13	11	
Julieann Riedstra	Committee Member	13	13	
Gavin Bates	External Member	13	11	Commenced 31/08/18

## Risk and Governance Sub-Committee Attendance

**2020 – 2021**

Board Member	Position Held	Number of meetings eligible to attend	Number of meetings attended	Comments
Rod Buchecker	Chair	4	4	Commenced 1/12/17 Commenced as Chair 17/03/20
Susie Robinson	Committee Member	4	3	Commenced 17/03/20
Julieann Riedstra	Committee member	4	4	Commenced 21/11/19
Kate Hartwig	Committee member	4	4	Commenced 19/03/14

## Zoos SA purpose and aspiration

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.

## Strategic plan

**Goal 1** - Connect people with nature: engage, inform and inspire people to act

**Goal 2** - Save species from extinction: conservation, wildlife health and research

**Goal 3** - Work in an ethical and sustainable manner, influencing others to follow our example

**Goal 4** - Grow a sound and advancing organisation, applying an innovative business approach

## 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. Some of the tasks were not able to be progressed as we had hoped due to the business interruption caused by COVID-19. Out of a total of 58 individual tasks detailed in the business plan, 55 were completed and 3 partially completed.



## Year in review – key numbers

Over 578,000 people visited Adelaide Zoo and Monarto Safari Park

475 animals were born during 2020 – 2021

15 conservation projects in Australia supported

\$15.12 million in free media coverage attracted

1.5 million website users

214,486 followers on social media (Facebook, Instagram, LinkedIn, Twitter and YouTube)

290 employees across both sites

431 registered volunteers across both sites

4,133 life members

43,338 annual members

12 field projects internationally across Africa, China, South East Asia and the Solomon Islands supported

365 days of COVID-19 restrictions on visitor numbers

## Year in review – finance snapshot

2020-21 was another challenging year for the operations of Zoos SA. Whilst the organisation reports a net surplus of \$8,794,000, this includes JobKeeper funding of \$2,426,000 and operating funding support of \$1,700,000. We also recognised \$6,306,000 in grant funding associated with the construction of our new Monarto Safari Park Visitor Centre.

Both of Zoos SA sites operated under a COVID-19 Management Plan during the entire financial year. Zoos SA was also subject to a South Australian government mandated 4 day closure in November 2020. The impact of capacity restrictions to daily visitation has had a detrimental impact on direct cash revenue from admissions (including education), catering, events, visitor experiences and donations.

Despite the mandated closure and restricted visitation capacity, we have been unable to significantly reduce our operating costs. This is largely due to the fixed costs of maintaining our sites and ensuring the welfare of our animal collection.

We continue to work closely with the South Australian Government Department of Treasury and Finance, and the Department for Environment and Water and are grateful for the temporary funding support of \$1,700,000 provided during the year. In the first quarter of the financial year we were also in receipt of JobKeeper support as provided by the Federal Government which totalled \$2,426,000. We also recognised grant income from the State and Federal Governments that are funding the new visitor centre currently being built at Monarto Safari Park. The funding that has been recognised totalled \$6,306,000.

The operating result, after excluding the additional state government support, the JobKeeper allowance, and the capital grant funding for the Visitor Centre, was a loss of \$1,637,000.

Total admissions amounted to just over 578,000 visitors for the year which was a 40% increase on the prior year result (2019-20 included a 3 month closure period). Admission income increased by 42% when compared to 2019-20 with paid admissions being particularly strong at Monarto Safari Park.

We saw a strong recovery in membership income which increased by 50%, which was due predominately to the freezing of income recognition for prepaid annual memberships during the prior year.

Tours and events income also increased by 18%, due to lower revenue from animal experiences, events, and functions in the prior year. These income streams have been significantly impacted by COVID-19 restrictions and are still yet to recover to pre-COVID levels. Similarly, catering commission income has been significantly impacted by COVID-19 restrictions with very little opportunity for our caterers to generate function income.

We received bequest income of \$263,000 and corporate support from in-kind contributions and sponsorships was significant at \$1,291,000. This was a 20% decrease on the prior year result which reflects the difficult corporate sponsorship market that exists during the pandemic.

Donations income amounted to \$708,000, with \$401,000 of this being used to support capital investment. This enabled us to fund several projects, and to continue our investment in our Wild Africa precinct.

Operating expenditure proved challenging to control, resulting in an increased focus on activity and expense management and restricting spending to only that which was essential.

Salaries and wage costs increased by 5% due primarily to lower costs being incurred in the prior year when staff were stood down during the 3-month closure period.

Other cost increases to note include an increase in maintenance expenditure which was largely a catch up on expenditure that was not incurred during 2020-21. Cost of sales increased in line with higher retail store sales, and tours and experiences cost increased due to the suspension of the contracted bus services in the prior year during the closure period.

Given the difficult trading conditions that were experienced during the year, management continued to limit as much discretionary expenditure as possible which can be seen in reductions to marketing and promotion, and other expenditure.

We invested \$9,113,000 in capital during 2020-21 (\$3,780,000 in 2019-20). Of this \$6,486,000 was for the new Monarto Safari Park Visitor Centre, and \$1,233,000 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 how these funds are best applied. Due to the adverse trading conditions experienced this year, no additional capital expenditure was undertaken beyond that what was budgeted for.

Our investment portfolio returned dividends of \$10,000 during the financial year and the value of the portfolio grew by \$70,000.

The ANZ debt was reduced by \$850,000, with a balance at 30 June of \$2,550,000. Prior to 30 June 2021 Zoos SA negotiated with ANZ to suspend all loan principle repayments during 2021-22 financial year to ensure all available cash could support the operations of both sites as well as the capital expenditure needed to ensure key projects at Monarto Safari Park are completed.

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. This is forecasting that debt principle repayment will recommence in the 2022-23 financial year. The repayment schedule is regularly discussed with ANZ and the State Government.

#### **KEY ACHIEVEMENTS:**

- Retained all employees despite COVID-19 disruption;
- Over \$9.11m invested in capital projects including the Monarto Safari Park Visitor Centre;
- Maintained contracted debt repayments;
- Controlled cash flow; and
- Maintenance and development capital expenditure in line with previous years.

## Saving species inside our gates

### Adelaide Zoo

**From snakes and lions to monkeys and birds, Adelaide Zoo proudly houses over 2,500 animals representing over 250 different species. Over 40 per cent of these species are threatened with extinction which makes our support critical for their survival in the wild**

Although COVID-19 created many challenges, the past year brought multiple births and new species to Adelaide Zoo. Adelaide Zoo welcomed the arrival of two Giraffe calves which were hand-reared by Monarto Safari Park keepers after a bond between calf and mother was not established. We received a female called Nolean and a male calf Azizi. The pair are now thriving in their new home thanks to the partnership of the ungulate teams of Monarto Safari Park and Adelaide Zoo.

In May this year, we took in two Dingo pups after they were found along with six other siblings abandoned near the Todd River and the Telegraph Station on the northern edge of Alice Springs. Having them here at Adelaide Zoo, based in our native animal precinct, is an exciting opportunity and we're very glad that we could offer them a home.

The Adelaide Zoo now has three Fennec Foxes on display after a young male joined the family in 2021.

Other notable species added to our wild family, as part of our ongoing population sustainability and breeding efforts, included: Red-tailed Phascogales, a Palm Cockatoo, Little Penguins, Quokkas, a Boyd's Forest Dragon, Southern Forest Dragons, Greater Stick-nest Rats, and Southern Purple-spotted Gudgeons.

During the year, there were also a number of notable births. These included two Asian Small-clawed Otter pups and three Little Penguin chicks in addition to our Golden Lion Tamarins which gave birth to triplets. We also welcomed two Quokka joeys into the world as well!

The Southern Purple-spotted Gudgeons have been breeding continuously since their arrival, and the fry are being offered to the Nature Glenelg Trust as part of its recovery program. In addition, we saw the birth of four Swift Parrots, two Black-winged Stilts, two Bush Stone-curlews, three Regent Honeyeaters and seven Rose-crowned Fruit doves.

Our breed-for-release programs have continued successfully throughout 2020-2021, with Orange-bellied Parrots (nine chicks), Western Swamp Tortoises (six hatchlings) and Greater Stick-nest Rats (14 pups), all breeding and providing offspring for release as part of their respective wild population augmentation and re-wilding programs.

## Delivering on our business goals:

### Goals

<p><b>Goal 1</b></p> <p>Connect people with nature: engage, inform and inspire people to act.</p>	<p>Throughout 2020-2021, despite COVID-related restrictions, Adelaide Zoo hosted many Brief Animal Encounters. A new program was implemented where visitors are offered an opportunity to get 'up close and personal' with our young giraffe, the Giraffe Face-to-Face. Recently, our Keeper For a Day and the Junior Keeper For a Day programs were reinstated. These personal interactions between zoo staff and visitors provided an exceptional opportunity for keepers to convey their passion for the animals within their care as well as the conservation needs of the animals' wild counterparts. With ongoing COVID-19, we continued to provide our members and the general public dozens of opportunities to engage with our animals and animal care staff online. This new communication process created more opportunities for remote engagement with our visitors and supporters, and gave us the ability to spread awareness about conservation regardless of the level of public access to our site.</p>
<p><b>Goal 2</b></p> <p>Save species from extinction: conservation, wildlife health and research</p>	<p>Adelaide Zoo had a successful season breeding a number of endangered species including Western Swamp Tortoises, Orange-bellied Parrots, Greater Stick-nest Rats and Greater Bilbies. Western Swamp Tortoises and Orange-bellied Parrots are listed as critically endangered by the Australian Government and International Union of the Conservation of Nature and are part of multi-institutional collaborative recovery programs. Many of these animals have already been introduced to the wild as part of carefully-managed breed-and-release programs.</p>
<p><b>Goal 3</b></p> <p>Work in an ethical and sustainable manner influencing others to follow our example.</p>	<p>At Adelaide Zoo, animal welfare is our number one priority. Every animal enclosure across our site was tested using the multi-dimensional Five Domains model of animal welfare: physical, social, environment &amp; management factors; mental and emotional state; health status/physical condition (including nutrition); natural behaviour patterns in zoo habitat conditions. A number of issues highlighted during the survey process have been alleviated through the renovation of exhibits and others are planned for correction within the next 12 months. Adelaide Zoo has continued to find more sustainable husbandry techniques and advanced the nutrition of the animals by continual revision of their diets.</p>
<p><b>Goal 4</b></p> <p>Grow a sound and advancing organisation, applying an innovative business approach.</p>	<p>Keeping staff participated in a range of development opportunities including field work, mental health training, first aid and emergency training, animal transports and online conferences. A significant renovation was undertaken to provide an exhibit for two new dingoes. Elevated platforms were added to the Giant Panda and Sumatran Tiger exhibits. These renovations were made possible through the support of some generous gifts and the volunteer representative group.</p>

## Saving species inside our gates

### Monarto Safari Park

**With over 70 percent of the species that call Monarto Safari Park threatened with extinction in the wild, our mission to protect them has never been more important. As we reflect on the past year, we're proud of our achievements.**

This year, our Life Sciences teams were tasked with breeding numerous species as part of the Australasian Species Management Program (ASMP), including population and recovery plans for threatened animals. We also worked to prepare for Wild Africa's new exhibits. Fourteen Scimitar-horned Oryx, which are extinct in the wild, were born. There were 14 calves bred to our Nyala, Zebra and Bison herds as well as more than two dozen Blackbuck.

We were delighted to welcome a Southern White Rhino calf into our care; a great ambassador for the species during our rhino tours. Four more giraffe calves were born unfortunately, two did not survive and the other two were hand-raised, one at Adelaide Zoo and one at Monarto Safari Park.

Our new African Painted Dog pack welcomed six pups, which is our first litter in several years. Our Spotted Hyena pair produced two female cubs and we welcomed back the two males that had been located at Adelaide Zoo. Unfortunately, the male lion cub from last year's litter passed away due to a metabolic bone disease.

Our native's program successes include the birth of two Greater Bilby, scores of Greater Stick-nest Rats, nine Tasmanian Devil joeys, and several Yellow-footed Rock Wallabies and Tamar Wallabies. We took into our care a Black-flanked Rock-wallaby, known as Waru by the traditional owners of the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands, which was hand-raised for later release into the Pintji as part of our work with this species in the APY Lands. She will contribute new genetics to this semi-wild population which will then be used to supplement the wild population. We also had six eggs laid by our critically endangered Western swamp tortoises. These were collected and all successfully incubated at Adelaide Zoo. Once mature enough, they will be released in Western Australia.

This past year, we also started a new breed and release program. Seven Mitchell's Hopping Mice were collected from the wild resulting in ten pups being bred at Monarto Safari Park. In the future, we will be releasing them into Mallee Cliffs National Park in New South Wales to help expand their population even further.

The Ungulate keepers were a crucial part of the planning, moving and releasing animals into one of Wild Africa's newest habitats. The new habitat, known as 'Etosha', now houses breeding groups for

Plains Zebra, Scimitar-horned Oryx, Ostriches, Eland as well as Blackbucks. The Ostrich were the first to breed successfully in this area and have four chicks.

Our primate team worked with Wild Africa staff to help plan for and establish a new Ring-tailed lemur walk-through exhibit. They also developed their husbandry program and care program. It's the first time we've held lemurs at Monarto Safari Park in about a decade.

## Delivering on our business goals:

### Goals

#### Goal 1

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

In order to comply with the ever-changing COVID-19 restrictions, we worked with the Visitor Experience team to develop new and altered Keeper Talks, Behind-the-Scenes Tours and Brief Encounters. This allowed visitors to continue to engage with animals and our conservation work during their visit. Our live streaming cameras at Chimpanzees and at our male Southern White Rhino habitat at Wild Africa continue to engage those not visiting in-person. The Life Science team continued to share our work through the media, inspiring people to take an interest and care about nature.

#### Goal 2

Save species from extinction: conservation, wildlife health and research

We bred a number of species ranging from Vulnerable to Extinct in the Wild and contributed to the managed populations of ASMP and recovery programs. These include African Painted Dog, Scimitar-horned Oryx, Bilbies, Black-flanked Rock-wallaby, Waterbuck, Giraffe, Greater Stick-nest Rat, Mitchell's Hopping Mice, Western Swamp Tortoise, Yellow-footed Rock Wallaby, Spotted Hyena, Tasmanian Devil, Southern White Rhino, Plains Zebra, Nyala, Tammar Wallaby and Scimitar-horned Oryx.

We were proud to be part of the release of over 70 Greater Stick-nest Rats into Mallee Cliffs National Park which had been bred here, Adelaide Zoo and Alice Springs Desert Park.

Keepers assisted researchers and veterinarians in collecting samples and getting observations for several studies looking at genetics of our captive Cheetah population in comparison to wild population genetics. They also helped establish a baseline relationship between consumption and belly distention in large carnivore species, looked at personality traits of our Greater Stick-nest Rats to see how it might affect survivability after release, and were involved in research investigating the evolution of possible disease resistance and tolerance for Tasmanian devils.

#### Goal 3

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

Life Sciences staff continued to work on improving Animal Welfare 'scores' produced from our internal audit system. From July 2020, we had three species identified for work plans to look at certain aspects of their care for improvement. One of these projects included a new off display housing area for our Leopard Tortoises. It was a true representation of the Natives team's ability to reduce, re-use and recycle with all the

	<p>work being done in-house and the large majority of materials being recycled and donated. Of the 14 actions identified for these three species, eight have been completed and five are in progress. In addition to the criteria being addressed, other improvements have also continued as animal welfare is one of our top priorities. Out of 55 other recommendations/suggestions that were not subject to work plans, 18% are complete and 31% are underway.</p>
<p><b>Goal 4</b> Grow a sound and advancing organisation, applying an innovative business approach.</p>	<p>Despite all the challenges and constraints presented by COVID-19, we were still able to provide some of our keepers with opportunities for learning through field work as well as first aid training. They also attended other zoos while accompanying animal shipments.</p>



# Leading the way in animal care and research

**Our Animal Health Department (AHD) is tasked with caring for the health of over 3,000 animals that live in both Adelaide Zoo and Monarto Safari Park. In addition to looking after the health of our animals, the AHD also functions as a critical hub for zoological research, teaching and training, conservation in and ex situ, while also attending to hundreds of wildlife emergency cases brought in by wildlife organisations, government agencies and the general public each year.**

Key financial year highlights include approval to extend our coverage to have an on-site veterinarian seven days a week at both Adelaide Zoo and Monarto Safari Park, and expanding our small team to include a second casual veterinarian, a part-time zoo nutritionist (we are only the second zoo in the region to employ a nutritionist) and a contracted Veterinary Pathologist.

Dr Lynley Johnson was awarded an academic scholarship from the University of Adelaide MBA for Community achievement for her work in conservation and connecting people with nature. Dr David McLelland was appointed Co-Convenor of the Veterinary Specialist Advisory Group of the Zoo and Aquarium Association. Dr Kathryn Johnson was successful in her Membership exams in Avian Medicine with the Australian and New Zealand College of Veterinary Scientists.

Noteworthy clinical activities included supporting the hand-rearing of two mismothered Giraffe calves, and the successful ultrasound monitoring of the reproductive cycles and laying of Western Swamp Tortoises. We oversaw the veterinary management of captive breed-for-release programs, including release of Greater Stick-nest rats, Mitchell's Hopping Mice, Orange-bellied Parrots and Regent Honeyeaters. Our elective caseload was managed well under COVID-19 restrictions and protocols. The risk of COVID-19 to Zoos SA's animals was continually re-evaluated and managed accordingly as circumstances changed and new information became available.

Zoos SA's Animal Welfare and Ethics Committee met twice during the financial year, with discussions including animal health, exhibit designs and upgrades and welfare audit results and tools, further cementing our position as a leader in the animal welfare space. This has been implemented into fortnightly reviews and improvements.

## Delivering on our business goals:

Goals	
<b>Goal 1</b> Connect people with nature: engage, inform and inspire people to act.	Our interactive viewing area at the Adelaide Zoo Animal Health Centre, and associated discussions with members of the public, continues to develop and showcase our activities. The AHD have been involved in a number of programs engaging the community, including heat stress events in Grey-headed Flying Foxes, conservation of Regent Parrots in the Riverland, and supporting the work of the Aboriginal community with endangered species in the APY lands.

<p><b>Goal 2</b></p> <p>Save species from extinction: conservation, wildlife health and research</p>	<p>The AHD has been directly involved in a number of in-situ and ex-situ conservation programs, including Brush-tailed Bettongs, Regent Parrots, Greater Stick-nest Rats, and Orange-bellied Parrots. We were again heavily involved in the response to heat-stress events in Grey Headed Flying Foxes, and have assisted the Department for Environment and Water with marine animals. A number of research papers by AHD staff were published, and several others are in preparation or submitted for peer review. We continue to develop our approach to managing the health of many endangered African ungulate species in the new Wild Africa precinct.</p>
<p><b>Goal 3</b></p> <p>Work in an ethical and sustainable manner influencing others to follow our example.</p>	<p>The AHD was once again active on the South Australian Wildlife Ethics Committee, including the implementation of online ethics training for field researchers involved with wildlife. There has been significant student supervision, including numerous extramural placements, vet-nurse placements through TAFE, Clinical Research Project, Honours and PhD Project supervision, lectures and practicals in veterinary clinical skills, and providing caseload for rotation and elective veterinary students.</p>
<p><b>Goal 4</b></p> <p>Grow a sound and advancing organisation, applying an innovative business approach.</p>	<p>We continue to cultivate partnerships that enhance our clinical, conservation and research activities. These partnership span veterinary, human health, and ecology fields, and include specialist support in ophthalmology, surgery, dentistry, anaesthesia, behavioural medicine, and diagnostic imaging.</p> <p>The AHD have found innovative ways to expand and refresh our equipment inventory, and have taken onboard opportunities to use industry improvements in record keeping.</p> <p>We continue to have close ties with many external agencies including Wildlife Health Australia, a number of universities, government departments, and a range of local and international organisations.</p>

## Conservation projects beyond our gates

**Our conservation team proudly participates in wildlife conservation projects and initiatives that ensure the long-term security of species. We have been working hard to protect habitat and the species in them.**

Across Australia, we've supported our 13 conservation priorities and we've continued our support for ecosystems around the world through our 12 international priorities across Africa, China, South East Asia and the Solomon Islands.

We have continued to restore and protect vital habitat for the endangered South-eastern Red-tailed Black-Cockatoo with our Aboriginal Learning on Country team again helping on-ground. We have increased our holding for a number of threatened species, such as the Plains Wanderer, now housing ten birds with breeding recommendations for the upcoming season. There are less than 1,000 of these critically endangered birds left in the wild, and our facilities are critical for their recovery.

The Greater Stick-nest Rat breeding program has seen over 100 animals released to the wild in Mallee Cliffs National Park, bringing this species back from extinction in New South Wales. Further new breeding programs have commenced in partnership with Australian Wildlife Conservancy, including Mitchell's Hopping Mice and Red-tailed Phascogales. The young bred as part of the program will also be reintroduced to Mallee Cliffs National Park.

Our bushfire recovery work continues on Kangaroo Island, where we have been on-ground surveying fauna in some of the remaining unburnt habitat. Commonwealth funding has seen facilities expand at Monarto Safari Park, and our capacity to hold threatened species has been increased. Our work, in particular with the Kangaroo Island Dunnart, continues.

We have continued to support rock-wallaby conservation, with a number of staff being involved in Warru (Black-flanked Rock-wallaby) trapping for population monitoring and translocation. Feral control at Aroona Sanctuary was undertaken quarterly, to help protect the long-term reintroduced population of Yellow-footed Rock-wallabies.

Our international partners continue to be impacted by COVID-19, particularly where tourism and its associated income has ceased. They nevertheless battle on with their conservation work finding ways to work with community and achieve on-ground outcomes.

In these times, partnerships are more critical than ever. Through partnerships with Ambleside Distillers and the Australian Rhino Project we were able to provide critical two-way radio communication equipment to the South African National Park Honorary Rangers. This equipment is critical to mitigating loss of life, facilitating immediate requests for medical response, alerting rangers to danger, and implementing rescue or support operations during their work in Kruger National Park.

**Delivering on our business goals:**

**Goals**

<b>Goal 1</b> Connect people with nature: engage, inform and inspire people to act.	We worked closely with local community, both locally and internationally. Community engagement is also vital to our international Conservation Priorities, from supporting Red-tailed Black-cockatoo recovery in South Australia, to community awareness campaigns and education in the Solomon Islands (Tetepare) and Sierra Leone (Tacugama).
<b>Goal 2</b> Save species from extinction: conservation, wildlife health and research	We're proud to protect many habitats and the species in them. Across Australia and the world, we've supported our 25 Conservation Priorities. We've been working closely with our partners and recovery teams, and translocated and reintroduced species bringing them back from local extinction and improving their populations.
<b>Goal 4</b> Grow a sound and advancing organisation, applying an innovative business approach.	We are continuing to expand our conservation breeding programs. We have upgraded holding facilities, with increased capacity and technology allowing us to increase, improve, and innovate with our breeding programs. We honour our commitment to recovery and continue to respond to emerging species crises and needs.

## Connecting visitors with nature

**In 2020-21, we welcomed 398,283 visitors to Adelaide Zoo and 179,858 visitors to Monarto Safari Park.**

Research shows that 89% of people who visit zoos plan to make a conscious effort to do things to help the environment after they've visited. With many species facing an uncertain future, it is more important than ever we get visitors through our gates so they can help us save species from extinction.

In 2020-21, Adelaide Zoo and Monarto Safari Park had a total of 578,141 visitors. This was an increase of 39.5% from the previous year. Apart from one, four-day lockdown closure due to COVID-19, both sites were able to operate without lengthy closure periods unlike the previous year.

Monarto Safari Park, based on the success of introducing summer hours in 2019/20, extended its summer operating hours for an additional month to the end of March 2021. Adelaide Zoo and Monarto Safari Park reported an increase in visitation numbers during the typically slow month of February, due to an unusually mild summer.

COVID-19 restrictions have continued to impact our operations and the way we deliver our visitor experiences. These impacts include, but are not limited to: event cancellations or restructuring of events. We have become very adaptable as restrictions impact us and our partners. Adelaide Zoo ran six evening zoos over December and January to maximise visitation while we were operating on 50% capacity.

### Total Attendances\*

<b>Monarto Safari Park</b>	<b>2019-20</b>	<b>2020-21</b>	<b>Variance</b>
Admissions	74,545	116,123	55.8%
Education	8,282	14,410	74%
Members	24,924	37,012	48.4%
Free	8,678	12,313	41.9%
	<b>116,429</b>	<b>179,858</b>	54.5%

<b>Adelaide Zoo</b>	<b>2019-20</b>	<b>2020-21</b>	<b>Variance</b>
Admissions	143,926	181,863	26.3%
Education	38,326	35,719	-6.8%
Members	90,045	135,878	50.9%
Other	25,481	44,823	75.9%
	<b>297,778</b>	<b>398,283</b>	33.7%

\*These numbers do not include function attendees

## Delivering on our business goals:

### Goals

#### Goal 1

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

We were able to operate a number of animal experiences across Adelaide and Monarto Safari Park as COVID-19 restrictions enabled their safe re-introduction to the daily offering at both sites. We reduced the number of participants in-line with social distancing requirements. There are still a range of behind the scenes experiences which we are unable to operate where COVID-19 poses a risk to animal welfare. Adelaide Zoo is home to a new VIP Giraffe experience, and it's all because of Nolean! This young hand-raised giraffe calf has brought so much joy not only to the zoo staff but also many visitors.

The introduction of travel restrictions continued to impact the interstate and international tourism markets. Outside of New Zealand, all other international visitation ceased.

A broad range of special events, like school holiday programs and animal experiences were offered across Adelaide Zoo and Monarto Safari Park as part of a revised annual calendar.

#### Goal 4

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

We continued to build on the range of experiences available by broadening our visitor markets and partnering with other tour operators, both locally and interstate, however this objective has been considerably impacted or halted completely as a result of the pandemic. One such innovative approach for attracting a new market to Adelaide Zoo was the development of a Dark History tour with another Tour Operator. This is considered Australia's first zoo-led dark history experience, and it attracted significant interest from media outlets as well as bookings. The pandemic gave us a chance to connect with our supporters through the dedicated 'Zoo to you' campaign run by PR and marketing.

## Connecting children with nature

**The Nature Theatre team offer unique opportunities for visitors to get up close to our animal ambassadors, to share animal experiences and connect children with nature.**

Through educational and engaging presentations like our Free Flight show and Wild Show we are able to connect children with nature, share stories and experiences to inspire change.

In May this year, we took in two Dingo pups after they were found along with six other siblings abandoned near the Todd River and the Telegraph Station on the northern edge of Alice Springs. Since their arrival, the pair have delighted young visitors with their inquisitive and playful nature. Having them at Adelaide Zoo is an exciting opportunity to educate visitors about Australia's wild dog.

The new amphitheatre area within the Variety Children's Zoo continues to provide a space that celebrates our native species and shows visitors how they can care for Australian fauna in their own backyard. This area has been a great space to connect with guests while still adhering to social distancing and COVID-19 restrictions. Recently, we've started using it for additional Wild Shows for private groups such as Family Fun Days, in lieu of our traditional Animal Encounters offering. The team continues to provide new experiences such as enrichment feeds and positive reinforcement training demonstrations with the goats, in addition to our daily Wild Shows.

### **Delivering on our business goals:**

<b>Goals</b>	
<b>Goal 1</b> Connect people with nature: engage, inform and inspire people to act.	Our 'Do try this at home' concept, inspires visitors to engage with their pets and undertake conservation actions in their local area to support native wildlife. Recent school holiday programs themed around zoo food and how light shapes animal behaviour have engaged visitors. The team has created new hands-on experiences enhancing engagement while remaining within social distancing requirements, making it fun and safe for everyone!
<b>Goal 2</b> Save species from extinction: conservation, wildlife health and research	The Nature Theatre team in collaboration with our Conservation team participate in both current and new breeding programs, for example the Red-tailed Phascogales breeding for release program, Little Penguin and Quokka programs. We also actively participate and support research in the field. We continue to care for wildlife in need, taking on two Dingo puppies, a young Common Wombat and Red-tailed Black Cockatoo recently.
<b>Goal 3</b> Work in an ethical and sustainable manner influencing others to follow our example.	Our team works hard to ensure we lead by example through our Free Flight presentation, Wild Shows and encounters and offer examples of ways to work in an ethical and sustainable manner.

**Goal 4**

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

The team strives to create new innovative opportunities like the engaging 'Pelican feed at night' during the recent Light Creatures event.



## Educating the conservationists of tomorrow

**Our Zoo Learning team designs and delivers learning experiences for students of all ages, as well as their teachers. It is so rewarding seeing young people's eyes light up when they discover something new about nature.**

Facilitated sessions that are designed to inform, inspire and connect people with nature have been delivered to pre-school, primary, secondary and tertiary students across the year. Sessions have been delivered on both of our sites as well as through outreach directly into schools.

In 2020-21, the Education team increased teacher engagement through the delivery of practical immersion programs that highlighted the outdoor learning potential of both the Adelaide Zoo Learning Lawns and the Monarto Safari Park Indaba Bush Camp and surrounding Mallee woodland. More than 20 new schools have booked overnight programs following these professional experiences.

A highlight of the year was the re-design of the Adelaide Zoo day programs to make greater use of a variety of outdoor learning spaces across the site – the Year 1&2 Habitats program has come to life in the Australian Aviary; the Year 3&4 Lifecycles program makes observations of and compares the endemic marine fauna of SA; and the Year 11&12 Biodiversity program investigates the ecosystem elements that support the Red-tailed Black Cockatoo.

At the same time, we also launched a pilot vocational education program 'Conservation Cadets' in two regional schools where students have undertaken four modules of the Certificate III in Conservation and Ecosystem Management in their own school and within a local conservation landscape setting while led by an experienced Zoos SA Conservation Educator.

With thanks to generous funding, and in a world-first, the Duke at the Zoo program was launched in early 2021 attracting almost 50 secondary youth from across the greater Adelaide suburbs and Monarto region to a weekly Duke of Edinburgh's Award program within a zoo setting.

The COVID-19 pandemic restrictions had a lesser impact than expected on Adelaide Zoo education admissions, with a small decline to 36,637 in 2020-21 (down 7% from the previous financial year), while Monarto Safari Park increased education admissions to 13,691 (up almost 75% from the previous financial year) – recognition of the shift to the value and adaptability of outdoor learning environments in a world of social distancing.

### Delivering on our business goals:

#### Goals

<b>Goal 1</b> Connect people with nature: engage, inform and inspire people to act.	Across the year over 400 schools from across South Australia attended our highly engaging outdoor educator-led sessions at both Monarto Safari Park and Adelaide Zoo (thus connecting with approximately 60% of all schools in the state). A re-design of day programs at Adelaide Zoo ensured the continuation of school bookings through spacing restrictions and a new curriculum direction supported by outdoor learning pedagogies.
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	<p>The Education team supported two second year Education under-graduates from Flinders University to complete their 5-week teaching placements.</p> <p>Education staff attended professional development in conservation parks near Renmark, on Kangaroo Island and near Mount Gambier highlighting a growth in the Education team's wider conservation knowledge within SA.</p> <p>The overnight-camp programs at both sites were booked to 90% capacity through each of the school terms. Four new roof top tents were installed at Adelaide Zoo.</p>
<p><b>Goal 2</b> Save species from extinction: conservation, wildlife health and research</p>	<p>Our Duke at the Zoo and Conservation Cadets programs worked alongside the Conservation team to maintain Plains Wanderer, Tasmanian Devil, Warru and Pygmy Blue-tongue breeding facilities as well as undertaking bird monitoring activities in the Mallee woodland.</p>

## Visitor experience and events

**To live up to our mission of connecting people with nature, we inspire action through a range of experiences and events that increase knowledge and change people's attitudes and behaviours.**

Every one of our 578,141 visitors in 2020-21 would have met and interacted with our friendly Visitor Services staff or volunteers. In a year where the public health directions meant no two days were ever the same, our army of enthusiastic and highly-skilled customer service professionals showed great understanding, flexibility and resilience in managing visitor requests and helping people get the most out of their visit.

Faced with the challenges of changing density restrictions and attendance caps, we were able to innovate to find new ways to deliver events, and continue building the popularity of our experiences to connect people with nature and attract visitors to our sites.

Our annual gala dinner was reimaged as an online auction event. Over 430 registered bidders saw all items sold and \$30,985 raised to make improvements to Animal Health Centre infrastructure.

750 guests experienced the magic of live orchestra in the lush gardens of Adelaide Zoo. Amicus String Quartet were joined by acclaimed Adelaide musicians to present Camille Saint-Saëns Carnival of the Animals and Danse Macabre, and Prokofiev's Peter and the Wolf in a special outdoor concert series across three sold-out nights.

Other highlights include our themed school holiday programs and six Zoo Nights at Adelaide Zoo events presented throughout December and January which gave our members and the public the unique opportunity to experience the Zoo during the 'after' hours of 5.30pm – 8.30pm.

Despite our tourism trade from international and interstate visitors continuing to be impacted by COVID-19 travel restrictions, the Lions 360 experience, VIP Panda and Panda & Friends tours all saw significant growth. Their huge popularity in the South Australian Tourism Commissions *Great State* promotion cemented their place among the state's best tourism offerings, and underscored the wonderful engagement opportunity these and our many other animal experiences provide for visitors with our conservation programs across both sites.

It is our hope that recovery from COVID-19 will continue and see us welcome back more visitors. In doing so, we will create more memorable opportunities and host unique corporate and private events in the next financial year.

### **Delivering on our business goals:**

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#### **Goals**

##### **Goal 1**

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

Through the broad range of experiences and events offered across Adelaide Zoo and Monarto Safari Park as part of the annual calendar, as well as daily animal experiences, we've been able to connect and engage with tens of thousands of our visitors. Despite our tourism trade from international and interstate visitors continuing to be impacted by travel

	restrictions, the Lions 360 experience, VIP Panda and Panda & Friends tours all saw significant growth.
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## Connection to country and culture

**For more than ten years the Aboriginal Learning on Country Program (ALoC) has provided employment and training to local Aboriginal people, supporting them to achieve accredited training outcomes while contributing to conservation at Monarto Safari Park and in other areas of South Australia.**

The current school-based traineeship program is sponsored by Santos and support is also provided by the Murraylands and Riverland Landscape Board, with a key focus over the past 12 months being the redevelopment and expansion of a bush food production garden.

Key highlights over the past 12 months include harvesting over 120 kilograms of produce from the expanded bush food garden located at Wild Africa and the ALoC team travelling to the South East to help local farmers create habitat for the threatened Red-tailed Black Cockatoos.

The current trainees are all on track to complete training towards a Certificate III in Conservation and Land Management by the end of 2021, which will also contribute to their South Australian certificate of Education (SACE).

We were proud to see Monarto Safari Park's Senior Indigenous Conservation Officer, Leon Dodd, win the SA Caring for Country NAIDOC Award. The Caring for Country Award recognises the contribution of Aboriginal and Torres Strait Islander people and communities who care for Country – the land, waters and all living things – conserving our biodiversity and protecting our environment for future generations.

### Delivering on our business goals:

#### Goals

<b>Goal 1</b> Connect people with nature: engage, inform and inspire people to act.	The ALoC program has increased the participation of Aboriginal people directly in nature conservation both on and off our sites, incorporating hands on connection with nature combined with accredited training. ALoC often engages with other schools and community groups to connect them with nature and to build more understanding about Aboriginal caring for country practices.
<b>Goal 2</b> Save species from extinction: conservation, wildlife health and research	The ALoC Team continues its ongoing effort to protect our native plants and animals by addressing key threats such as weeds and feral animals on site at Monarto Safari Park. ALoC has also contributed to a range of conservation programs including assisting with the establishment of the Plains Wanderer program, Red-tailed Black Cockatoo plantings and feral animal control at Aroona Sanctuary.

## Inspiring visitation and influencing change

**Continuing to highlight conservation and driving visitation have been the core foundations of communications over the last year. Facing reduced capacities and reduced budgets, the Marketing and Public Relations departments have had to get creative.**

After reopening in June 2020, Adelaide Zoo and Monarto Safari audiences were incredibly engaged and active. Visitation was steady but limited due to ongoing and frequently changing COVID-19 Management Plan requirements, leading to limitations on admissions at critical times of the year including Summer School Holidays.

Working in close collaboration with the Events and Visitor Services Departments we devised new ways to open the sites outside of the standard hours to increase capacity, drive visitation and create opportunities for our visitors to see the zoo and park in new ways.

Adelaide Zoo events included Zoo Nights which were held on six balmy evenings over the summer. These events saw up to 1,200 additional people per night enter the zoo. Additionally, we held sold out orchestra sessions on the Central Lawns. Aside from additional ticket sales and audience engagement, events like these provide opportunities for our catering partners who have experienced a loss from venue hire cancellation and the restricted site capacities.

Our 'Black and White Friday' campaign launched on Black Friday, the world's big shopping day aligned with American Thanksgiving, was originally aligned with the announcement of the Giant Pandas extending their stay at Adelaide Zoo in 2019. In November 2020, Zoos SA officially coined 'Brown Thursday', asking audiences to 'give sh\*t about conservation'. Launching a collection of 'sh\*t gift cards', raising over \$2,500 in donations, increasing website visitation by 5% and receiving over \$46,000 in publicity. The positioning of this campaign was highlighting that while the world stopped for COVID-19, conservation projects are still vital and continuing. It also drew attention to other Zoos SA products on sale on Black & White Friday.

Website visitation continued to grow, reaching a new record of 1.5 million sessions, proving the increased reach and audience engagement despite the pandemic and reduced advertising spends.

The marketing team worked closely with creative agency The Rowdy Group to rebrand Monarto Safari Park to tie with the opening of the new Visitor Centre, hotel and Wild Africa experience. This project included a new visual identity and the tagline 'The Wild is Calling'.

The PR team continued to attract significant earned publicity through both traditional and online media. In 2020-2021, Zoos SA reached over 83 million people through earned coverage. This coverage was worth more than \$20 million in advertising space rate. Continued use of frequent content releases has been appreciated by media locally, nationally and international, often providing a much-needed good news story after all of the negative coverage about COVID-19.

### Delivering on our business goals:

#### Goals

Goal 1 Connect people with nature:	In 2020-2021, Zoos SA created new events and offerings to connect the public with nature and conservation. We reached over 83 million people through earned coverage. This coverage
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engage, inform and inspire people to act.	<p>was worth more than \$20 million in advertising space rate.</p> <p>We continued to bring nature and animals into people's homes through digital channels, growing the Zoos SA network and increasing both Electronic Direct Mail database and social followers. Content is always designed to engage, educate and entertain.</p> <p>Late in 2020 'Vitamin N' campaign was launch as a pre-cursor for the 2021 Wellness campaign to highlight the mental and physical health benefits of being in nature.</p>
<p><b>Goal 2</b></p> <p>Save species from extinction: conservation, wildlife health and research</p>	<p>In November 2020, Zoos SA officially coined 'Brown Thursday', asking audiences to 'give sh*t about conservation'. The positioning of this campaign was highlighting that while the world stopped for COVID-19, conservation projects are still vital and continuing. A large number of conservation-based PR placements helped promote pro-conservation attitudes and increase public interest in conservation and the urgent need to save species from extinction. This indirectly supported species conservation.</p>
<p><b>Goal 3</b></p> <p>Work in an ethical and sustainable manner influencing others to follow our example.</p>	<p>Campaign messaging was engaging and featured strong call to actions to influence others to follow our example. Publicity continued to broadcast the Sustainable Palm Oil policy to inspire followers to make more sustainable decisions in everyday shopping.</p> <p>In conjunction with our Waste Management provider, a project to use signage to reduce bin contamination leading to reduced waste to landfill was started in early 2021, expected to roll out at the zoo in late 2021.</p>
<p><b>Goal 4</b></p> <p>Grow a sound and advancing organisation, applying an innovative business approach.</p>	<p>Faced with reduced capacities and ever-changing directions, we've had to reimagine the way we promote and market the business and drive visitation. Marketing has been running and reviewing tests on engagement and return on investment for campaigns. Implementing learnings to better maximise a reduced marketing budget and keep Zoos SA, Adelaide Zoo and Monarto Safari Park brands in market and engaging.</p>

## Fundraising to make a difference

**As a conservation charity, Zoos SA once again enjoyed the support of donors, supporters and corporate partners from across Australia, resulting in a net income of \$2,304,921.**

Corporate partnerships with like-minded organisations, individual philanthropy from major donors and a range of fundraising initiatives played a role in this success.

These contributions supported a range of habitat upgrades and capital development projects at both sites including further development of the Anthony Taylor Rhino Quarantine and Management Centre, extension of the Rhino Raceway and progress on the Valley of the Lemurs experience at Monarto Safari Park. Through a partnership with Gold Rhino, we have worked on the phase one expansion of the Black Rhino habitat that will lead to establishing a breeding population in SA.

We received support from over 17,199 households in 2020-21, including 8,521 new supporters. Animal adoptions remained popular, with the four most popular animals being Meerkats, African Lions, Sumatran Tigers and Tasmanian Devils – closely followed by Sumatran Orangutan, Giant Panda & Cheetah.

Although we didn't host our annual Zoos SA Gala, we did hold our online auction which is usually part of the Gala. The focus of the online auction as to raise funds for our Animal Health Centre and in particular, dental equipment. The total raised was \$30,985.

Fundraising	2020-21	2019-20	Variance
Corporate Sponsorship (cash)	\$474,942	\$450,433	\$24,509
Corporate Sponsorship (in kind)	\$816,515	\$1,167,805	(\$351,290)
Grants	\$11,375	\$223,959	(\$212,584)
Appeals and Donations	\$578,857	\$548,011	\$30,846
Animal Adoption	\$128,944	\$130,961	(\$2,017)
Gala Fundraising Dinner/Auction	\$30,985	\$94,028	(\$63,043)
Bequests	\$263,303	\$269,283	(\$5,980)
<b>TOTAL</b>	<b>\$2,304,921</b>	<b>\$2,884,480</b>	<b>(\$579,559)</b>

### Delivering on our business goals:

#### Goals

<b>Goal 1</b> Connect people with nature: engage, inform and inspire people to act.	Our donors have been able to feel personally invested in the animals they are supporting through our animal adoption program. This keeps them engaged and helps us save these species from extinction!
<b>Goal 2</b> Save species from extinction: conservation, wildlife health and research	The funds raised from our collective fundraising efforts have been used for a variety of purposes, often with the end result being to assist with our conservation outcomes. We would not be able to create our Anthony Taylor Rhino Management Facility, the Black Rhino exhibit expansion or upgrades at the



	Southern White Rhino habitat and help to safeguard this precious species without the support of our donors and corporate partners.
<b>Goal 3</b> Work in an ethical and sustainable manner influencing others to follow our example.	All fundraising campaigns and corporate partnerships are opportunities to help drive positive change for the environment and encourage more sustainable practices. By engaging donors and working with organisations we can influence others to follow our example and dramatically increase the scale of our conservation efforts and impact.
<b>Goal 4</b> Grow a sound and advancing organisation, applying an innovative business approach.	Zoos SA has a very successful corporate partnerships program with various organisations, who provide both cash and contra items for projects, provision of services and infrastructure. We in turn provide many benefits to those partners so that the partnership is mutually beneficial to all parties. Many projects would not be possible without the support of our numerous partners, as well as funding provided by the South Australian Government, and we greatly appreciate them!

## Growing our membership base

**At Zoos SA we're proud to be owned by our members. As a conservation charity, we rely on the support of our members to continue vital work connecting people with nature and saving species from extinction.**

The support of our dedicated members helps us to not only care for the thousands of animals in our care but contributes to important breeding and conservation programs working to save species from extinction.

In 2020-21, more than 47,000 people were actively involved as a member of Zoos SA and 67% renewal rates show that they are committed to supporting our work as a conservation charity. We welcomed 428 new life members during this financial year which increased the overall number of life members to 4133 individuals.

The income from our membership significantly increased after the 3 month 'automatic extension' offered in 19/20 due to our closure period.

Membership income	2020-21	2019-20	Variance
Annual Membership	\$3,447,340	\$2,214,254	\$1,233,086
Life Membership	\$392,492	\$348,671	\$43,821
<b>TOTAL</b>	<b>\$3,839,832</b>	<b>\$2,562,925</b>	<b>\$1,276,907</b>

### Delivering on our business goals:

#### Goals

<b>Goal 1</b> Connect people with nature: engage, inform and inspire people to act.	Our members are welcome to visit our two sites as often as they like, giving us endless opportunities for ongoing interactions that inspire the next generation of passionate conservationists. During periods when we are closed due to statewide lockdowns, we continue connect people with our animals and their conservation efforts by engaging in online content and videos of our animals and keeper talks.
<b>Goal 2</b> Save species from extinction: conservation, wildlife health and research	Our biannual Zoo Times publication is a great way to educate our members about the work they are helping us achieve in conservation. We hope that this will give them an understanding of how they are making a difference and help them see opportunities to continue their involvement. With the financial constraints imposed by our closure and ongoing restrictions, we issued our November 2020 and May 2021 publications in a digital format.
<b>Goal 4</b> Grow a sound and advancing organisation, applying an innovative business approach.	Memberships provide a critical revenue source for Zoos SA, comprising over 10% of our annual revenue.

## An advancing organisation

**Our People and Performance team is committed to supporting Zoos SA's passionate and capable 290-strong workforce and 450 volunteers through a number of programs and initiatives.**

COVID-19 has continued to impact our operations and workforce. People and Performance has continued supporting the business and our workforce in these unprecedented times with industrial advice, employee relations and most importantly wellbeing advice and connections.

Our focus on wellbeing initiatives has included mental health support, engagement initiatives and financial information to support our workforce and their families after our closure and our November snap lockdown. While we had to stand down some staff during our closure, we have kept all our people employed and have brought them back to work keeping them engaged and connected to the organisation.

Amid the challenges and uncertainty COVID-19 as a crisis has presented our workforce and people, we have continued working on key projects including the planning, consultation and implementation on a number of exciting Monarto Safari Park development projects. We have also continued our focus on safety and wellbeing across the organisation.

### **Delivering on our business goals:**

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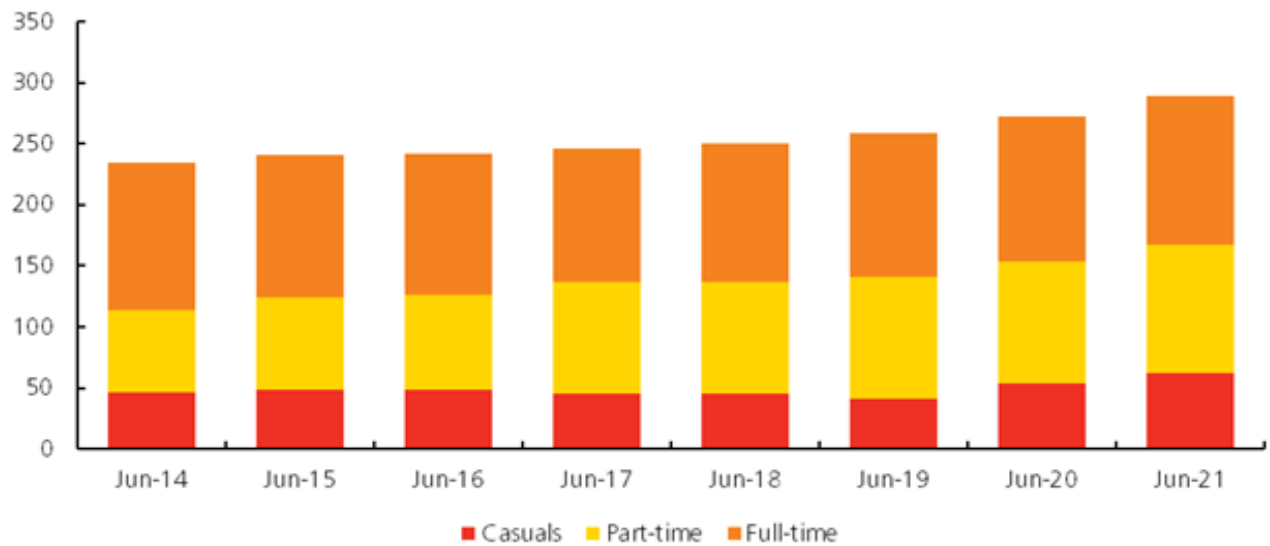
#### **Goals**

##### **Goal 4**

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

People and Performance has, through guiding conversations and consultation processes, positioned Zoos SA to best utilise its resources and build resilience with the future capacity to grow so that it is capable and ready to achieve our goals outlined in our Strategic and Master Plan. We approach system reviews with an openness to introduce change and use technology to add value and provide opportunity to grow our effectiveness to meet the needs of our stakeholders.

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EMPLOYEES PER DEPARTMENT AS OF 30 JUNE 2021	FULL TIME	PART TIME	CASUAL	TOTAL
Community Engagement	23	34	51	108
Corporate Services	7	5	1	13
Life Sciences	69	59	10	138
People & Performance	3	5		8
Property & Development	20	2		22
<b>Grand Total</b>	<b>122</b>	<b>105</b>	<b>62</b>	<b>289</b>

## Innovation and information technology

**Information and communication technology has continued to develop over the 2020-21 financial year with many changes and improvements in this area.**

As COVID-19 continued to impact, we have continued to improve our connectivity for people to work anywhere with improvements to our security for remote connections.

We have also expanded our engagement with more web enabled cameras streaming to our website through YouTube including limited time web streams for World Otter Day and World Giraffe Day. We were also able to host special events through the web with both our Annual General Meeting and Periodic meeting being held both onsite and online.

Our booking system has continued to perform with upgrades for web store security being planned and implemented. Our Business Analyst team have also been preparing for the implementation of a new customer relationship management to replace our existing system. When this project is complete it will provide a much-improved interface for our members to use.

Our internal systems were upgraded towards the end of the financial year with capacity assessed and provided for the next five years. Connecting Up have continued to be an exceptional partner in the acquisition of refurbished computer equipment, software licensing and general advice for the not-for-profit sector.

### **Delivering on our business goals:**

#### **Goals**

<b>Goal 3</b> Work in an ethical and sustainable manner influencing others to follow our example.	We continued our use of recycled and refurbished equipment, not only saving the organisation money but also reducing the amount of computer equipment going to landfill. We're also continuing use of e-waste facilities at both sites for unusable equipment.
<b>Goal 4</b> Grow a sound and advancing organisation, applying an innovative business approach.	We tendered for a managed service (ICT) partner in October / November assessing and selecting the best organisation from 10 respondents. We also reviewed our telecommunications partners for both mobile and landline communications.

## Our volunteers

**Zoos SA's more than 450 volunteers form an indispensable part of our zoo family and support 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 connect people with nature and save species from extinction. Volunteers at Zoos SA have contributed to 39 programs over the past twelve months with 73,670 hours of service. This is outstanding given the ongoing COVID restrictions and represents \$1.47 million dollars in value to Zoos SA.

Volunteers at both Monarto Safari Park and Adelaide Zoo have done a tremendous job of raising awareness and hosting fundraising events. The \$30,000 raised was donated to help improve our browse plantation as well as build storage sheds for it! This has significantly improved the capacity for collection. Many fundraising activities have yet to resume, which while impacting dollars raised, has not dampened volunteer spirits and enthusiasm to resume activities as soon as possible.

During National Volunteer Week, South Australia's prestigious Premier's Award was presented to five Zoos SA recipients for their leadership and volunteer contributions. The awards went to Barry Hickman, Margaret Menadue, Albert Horvath, Barry Hedley and Ray Newall. The Zoos SA Presidents Award was also granted to Barry Hickman for his outstanding contributions to Adelaide Zoo's BEEZA program.

There have been significant Volunteer Program staff changes with the recruitment of Nikki Marcel as the Monarto Volunteer Coordinator. After the resignation of Volunteer Manager, Carolyn Pickering, Nikki moved up into this role and a new Monarto Coordinator, Shelley Pyrah was employed. Louise Potter continues to support the Adelaide Zoo volunteers and the many special events such as Boo at the Zoo and Night Zoos. From a volunteer recruitment perspective, our priority has been Monarto Safari Park and preparing for the new Visitor Centre. Twenty-three new ZuLoop Guides were recruited and a five-week training program was developed and implemented in April and May. The successful trainees have continued with on the job learning with volunteer mentors with a second training intake scheduled for later in the year.

### **Delivering on our business goals:**

#### **Goals**

##### **Goal 4**

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

Our volunteers are critical to us growing a sound and growing business. Recruitment of staff and additional Monarto Safari Park volunteers for Guiding and Wild Africa has been a key focus for growing the capacity of Zoos SA. Volunteers play a key role in providing engaging experiences for visitors and helping in the construction of new developments within the park. A significant amount of time has been spent auditing and ensuring our volunteer record and rostering management system is accurate and provides a true depiction of volunteer hours, rosters, qualifications and engagement history. We use the online software platform called Better Impact which is accessed by both staff and volunteers. 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

- |  |  |
|--|--|
|  | <ul style="list-style-type: none"><li>• connecting volunteers to our purpose and aspiration</li><li>• providing a positive culture</li></ul> |
|--|--|

	<p>We have continued to engaged people with volunteering opportunities that are mutually beneficial, enhance our work, support our conservation goals and enable us to build a sound business.</p>
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## Working ethically and sustainably

**As a conservation charity, we are committed to working ethically and sustainably while influencing others to do the same. With our business' reliance on natural resources and as leaders in species conservation and environmental education, we are in a unique position to highlight environmental sustainability and inspire our visitors to take action in their own lives.**

Monarto Safari Park has continued its partnership with Peats Soil and Garden supplies, which allows us to compost the large stockpile of manure and animal bedding materials on site. This is reused as a soil enhancer. Plans are to use this material in the upcoming development of the new front entrance to enhance the soil properties with an organic product developed using 100% zoo manure and composted animal bedding.

Adelaide Zoo continues to recycle its green waste including manures and animal bedding which is transferred to Peats Soil who composts the raw material into a product called Zoo Poo, then distribute it for sale.

As part of our Environmental Management Plan (EMP), we have developed a single use plastic policy based on an audit conducted in late 2020. Response to management of COVID 19 has interrupted progress achieved on reduction in the use of single use plastic. Some items of food dispensing have reverted to single use to prevent risk of spreading infection.

Zoos SA continues to work with Plastic Free SA to gain accreditation for both sites as Plastic Free Precincts and is in the process of updating the Single Use Plastic policy to reflect the impact of COVID 19 management and corresponding exemptions.

Water usage across both sites continues to be monitored by staff using the portals set up by utilities companies that allow us to remotely track usage and to proactively assist with identification of leakages for water. This remote monitoring has been critical in the early identification of issues that with immediate response and rectification has enabled potential losses to be kept to a minimum and remediation addressed immediately upon being identified thus saving valuable resources and money!

We have improved facilities management processes through the introduction of performance based and financially incentivised contracts with service providers. The new contracts allow us to claw back money from the scheduled payments if a service is non-compliant under its provisions - this helps us better manage our resources and maintain compliance.

### **Delivering on our business goals:**

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#### **Goals**

##### **Goal 3**

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

Zoos SA's EMP has a strong focus on sustainable resource consumption and corporate responsibility with advanced ethical social considerations. This focus has been championed across both sites and further supported through waste management; practices underpinned by an integrated waste management and cleaning contract.



<b>Goal 4</b> Grow a sound and advancing organisation, applying an innovative business approach.	We have improved facilities management processes by introducing performance based/financially incentivised contracts with service providers.
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## Transforming our facilities

**Zoos SA owns and operates millions of dollars' worth of infrastructure and facilities across both Adelaide Zoo and Monarto Safari Park.**

Our 20-Year Master Plan sets our vision for the transformation of both Adelaide Zoo and Monarto Safari Park over the next two decades through an extensive organisational-wide capital works program that will represent significant investment on the corporate balance sheet.

Development, supported by \$15.8 million of external funding from the Australian Government and South Australian Government, continues on the new Visitor Centre at Monarto Safari Park. The project has significantly progressed since Mossop Construction & Interiors started work on site in January this year and will be approaching lock up near the end of 2021 with the roofing to the main building already completed and construction of external walls and cladding considerably advanced. We anticipate the new Visitor Centre will be completed in the first quarter of 2022.

Next up in the Master Plan is Adelaide's African Oasis and Aussie Icon projects, with concept designs already developed. Then, several smaller developments will be planned after these two major ones are funded and completed.

This next phase of the Master Plan will provide opportunity to connect with Adelaide's Riverfront precinct along 250 metres of river frontage by transforming the current site occupied by aging back of house infrastructure into valuable exhibit space-connecting directly with the public realm that will provide a point of destination from both inside and outside the Zoo and reinforce our goal to connect people with nature.

Throughout 2020-2021 we delivered a number of smaller capital projects thanks in part to donations and bequests. We identified nine different projects in the 19/20 CapEx that would have been delayed if not for the financial support from these donors and are very grateful we could complete them.

Some of the key projects delivered in the past financial year were the construction of a Dingo exhibit, installation of a Sumatran Tiger climbing structure, redevelopment of the Brazilian Tapir exhibit, expansion of the Orange-bellied Parrot facility, installation of internal climbing structures at Giant Pandas off limit areas, resurfacing the pathway between Minchin House and Immersion, new Cheetah gates and Wild African Dog gates at Monarto Safari Park as well as a new Black Rhino exhibit and holding facility. There were many minor works completed as well including emergency repairs to fridge and freezer units and the purchasing of eight replacement motor vehicles for both sites.

### **Delivering on our business goals:**

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#### **Goals**

##### **Goal 1**

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

We delivered developments that provide visitor enjoyment in a wide range of weather conditions, catering for the needs of all ages, cultures and abilities.

<b>Goal 4</b> Grow a sound and advancing organisation, applying an innovative business approach.	We continue to develop concepts for priority development projects as part of the 20-Year Master Plan. The concepts are developed with costed project briefs so the Zoo is in a position to be project ready and actively leverage external funding as opportunity arises.
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# Wild Africa and Monarto Safari Park's expansion

With plans to become the world's largest safari experience outside of Africa and the hotel accommodation construction now well underway, our Wild Africa team is working harder than ever to extend and transform the property adjacent to the existing Monarto Safari Park site.

There was significant progress in many project activities within the Wild Africa site, including a concrete wall and floor build for the Rhino Management and Quarantine Centre. We have had the quarantine waste water system installed and the entire area surrounding the building has had the final surfaces laid ready for the external yards to be built. The 2.2-kilometre rhino 'raceway' which feeds from the Rhino Management and Quarantine Centre to each of the paddock sections has now had all of the posts concreted into the ground and the cable holders have begun to be installed.

Animals now roam Wild Africa! The southern section paddock, named Etosha, is now complete with all fencing, safari tracks, water points, irrigation and its waterhole installed and has a variety of animal species now calling the area home.

Animal handling facilities at various strategic locations in each of the paddock sections have been planned and construction has begun on a number of these. The facilities will aid in the management and welfare of each of the species we plan to hold throughout Wild Africa.

The northern section paddock has eight and a half kilometres of fencing well underway, ready for safari tracks to be finalised.

The 'Valley of the Lemurs' habitat and the first quarantine night quarters is now complete with Lemurs using both spaces. We are now focusing on visitor entrance facilities, outdoor heated 'Pods' and construction of a second night quarters.

All eight waterholes have now been dug and clay lined with seven of these now filled with raw water thanks to our partnership with SA Water. This partnership has also benefited irrigated areas of pasture as we have now installed three irrigation systems and run raw water to other key areas. Landscaping each of the eight waterholes is currently underway.

Our external perimeter security is in the final stages of feral proofing with the rabbit netting almost complete.

We continue to carry out many land management and conservation activities. These include revegetation and regeneration, endangered plant species protection (Monarto Mint Bush and Silver Leaf Daisy), pest and weed control, fire break maintenance and biotic surveys. We work closely with Landscape South Australia Murraylands and Riverland on the protection of endangered plant species through joint planting programs to increase populations.

We collaborated with both internal and external industry peers in planning, budgeting, procurement, researching and reporting processes to achieve best practice in all aspects of the Wild Africa Project build. This included working with a wide variety of individuals and organisations

including other Australian and New Zealand zoos, state and local government departments, community natural resources management, training organisations and project partners.

## Delivering on our business goals:

### Goals

<b>Goal 1</b> Connect people with nature: engage, inform and inspire people to act.	Working with external project partners, we're utilising the Wild Africa Project to promote the plight of Southern White Rhinos in the wild as Wild Africa will be pivotal to the building of a viable insurance population of rhinos in our region. The special visitor experiences being created will provide visitors with many exciting and immersive ways to learn more about conservation issues in the wild.
<b>Goal 2</b> Save species from extinction: conservation, wildlife health and research	The Wild Africa project, due to its size and new facilities, will increase Zoos SA's capacity to house and improve both native and exotic endangered animal breeding programs, including that of the vulnerable Southern White Rhino. The project site also has important patches of local native vegetation, housing a number of critically-endangered plant species which we protect through regeneration practices and propagation programs.
<b>Goal 3</b> Work in an ethical and sustainable manner influencing others to follow our example.	All planning and construction activities on the Wild Africa Project site are approached with animal welfare and sustainability best practice in mind. In collaboration with both internal and external industry peers, the designs of animal facilities are reviewed to ensure all aspects of animal welfare are considered. When planning for the Wild Africa Project's new infrastructure we address and apply sustainable design criteria to ensure we minimise and, where possible, improve Zoos SA's impact on the natural environment while ensuring protection from natural risks.
<b>Goal 4</b> Grow a sound and advancing organisation, applying an innovative business approach.	The Wild Africa Project supports current and new staff and volunteers with many opportunities to grow and excel; this comes from being involved with new exhibit builds, in particular first-time and unique construction activities. Both animal handling and construction staff are involved with planning and problem-solving activities, and those involved in construction are trained to use a variety of machinery and equipment to ensure we are carrying out all activities with WHS best practice in mind.  The Wild Africa Project provides outstanding opportunities for existing and new stakeholders to be involved. This involvement can be through investing in capital projects, environmental protection, conservation and/or educational programs.

## Financial statements

### 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 2021

	2021	2020
	\$	\$
<b>Revenue</b>		
Admissions, Membership and Other Revenue	19,673,386	15,128,895
Grants	16,403,510	10,546,570
Gain on Sale of Land	14,651	1,950,288
Insurance Recoveries	1,677,273	1,300,000
Sundry Sales/Income	293,164	279,895
Bequests	263,303	269,283
<b>Total Revenue</b>	<b>38,325,287</b>	<b>29,474,931</b>
<b>Expenses</b>		
Salaries, Wages & On-Costs	(16,915,288)	(16,180,351)
Animal Care	(1,155,172)	(1,142,167)
Maintenance Consumables	(2,003,654)	(1,559,265)
Cost of Sales	(1,086,164)	(560,863)
Conservation & Research Projects	(1,337,724)	(1,450,959)
Utilities	(745,396)	(856,738)
Marketing & Promotion	(477,973)	(732,290)
Tours & Experiences	(1,578,907)	(992,860)
Depreciation	(2,581,298)	(2,810,581)
Other Expenses	(1,530,446)	(1,755,389)
<b>Total Expenses</b>	<b>(29,412,022)</b>	<b>(28,041,463)</b>
<b>Surplus from operating activities</b>	<b>8,913,265</b>	<b>1,433,468</b>
Finance Income	18,739	46,486
Finance Expenses	(137,799)	(178,836)
Net Financing Expense	<b>(119,060)</b>	<b>(132,350)</b>
<b>Surplus for the Year</b>	<b>8,794,205</b>	<b>1,301,118</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	69,514	(12,077)

<b>Total Other Comprehensive Income / (Loss) for the year</b>	<b>69,514</b>	<b>(12,077)</b>
<b>Total Comprehensive Income for the year attributable to members</b>	<b>8,863,719</b>	<b>1,289,041</b>

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

**STATEMENT OF FINANCIAL POSITION**  
**AS AT 30 JUNE 2021**

	<b>2021</b>	<b>2020</b>
	<b>\$</b>	<b>\$</b>
<b>Current Assets</b>		
Cash and Cash Equivalents	1,576,436	2,272,263
Receivables and Prepayments	7,610,709	2,096,293
Inventories	376,793	553,724
<b>Total Current Assets</b>	<b>9,563,938</b>	<b>4,922,280</b>
<b>Non Current Assets</b>		
Financial Assets at Fair Value	449,619	378,093
Property, Plant and Equipment	55,265,844	48,775,213
<b>Total Non Current Assets</b>	<b>55,715,463</b>	<b>49,153,306</b>
<b>Total Assets</b>	<b>65,279,401</b>	<b>54,075,586</b>
<b>Current Liabilities</b>		
Sundry Creditors	4,783,976	3,358,726
Income in Advance	6,559,802	5,097,301
Loans and Borrowings	3,016,497	1,299,181
Employee Benefits	3,869,626	3,601,895
<b>Total Current Liabilities</b>	<b>18,229,901</b>	<b>13,357,103</b>
<b>Non Current Liabilities</b>		
Loans and Borrowings	343,551	3,359,019
Income in Advance	3,736,002	3,258,452
Employee Benefits	361,264	356,048
<b>Total Non Current Liabilities</b>	<b>4,440,817</b>	<b>6,973,519</b>
<b>Total Liabilities</b>	<b>22,670,718</b>	<b>20,330,622</b>
<b>Net Assets</b>	<b>42,608,683</b>	<b>33,744,964</b>
<b>Reserves</b>	<b>60,573</b>	<b>(8,941)</b>
<b>Retained Funds</b>	<b>42,548,110</b>	<b>33,753,905</b>
<b>Total Equity</b>	<b>42,608,683</b>	<b>33,744,964</b>



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

**STATEMENT OF CASH FLOWS  
FOR THE YEAR ENDED 30 JUNE 2021**

	<b>2021</b>	<b>2020</b>
	<b>\$ Inflows (Outflows)</b>	<b>\$ Inflows (Outflows)</b>
<b>Cash Flows from Operating Activities</b>		
Receipts		
Receipts from customers	19,710,658	17,476,172
Donations, Bequests and Sponsorships	2,262,771	3,000,922
Payments		
Wages and Salaries	(16,855,825)	(15,909,658)
Suppliers	(8,530,900)	(8,090,720)
Conservation & Research Projects	(1,337,724)	(1,450,959)
<b>Net Cash Provided by/(Used in) Operating Activities</b>	<b>(4,751,020)</b>	<b>(4,974,243)</b>
<b>Cash Flows from Investing Activities</b>		
Purchase of Property, Plant and Equipment	(6,128,288)	(4,447,401)
Proceeds from Sale of Land	14,651	1,950,288
Sale/(Purchase) of Shares and Investments	(2,012)	31,322
Interest and dividends received	18,739	46,486
<b>Net Cash Provided by/(Used in) Capital and Investing Activities</b>	<b>(6,096,910)</b>	<b>(2,419,305)</b>
<b>Cash Flows from Financing Activities</b>		
Net State Government Grants Received	6,036,026	5,928,767
Net Other Grants Received	5,552,028	3,262,645
Net Repayment of Borrowings	(1,298,152)	(702,087)
Payment of Interest	(137,799)	(178,836)
<b>Net Cash Provided by Financing Activities</b>	<b>10,152,103</b>	<b>8,310,489</b>
<b>Net (Decrease)/Increase in Cash Held</b>	<b>(695,827)</b>	<b>916,941</b>
<b>Cash at the Beginning of the Year</b>	<b>2,272,263</b>	<b>1,355,322</b>
<b>Cash at the End of the Year</b>	<b>1,576,436</b>	<b>2,272,263</b>

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

**REVENUES AND EXPENSES**  
**FOR THE YEAR ENDED 30 JUNE 2021**

	<b>2021</b>			<b>2020</b>	
	Adelaide Zoo \$	Monarto Safari Park \$	Society \$	Total \$	Total \$
<b>REVENUE</b>					
Admissions	5,448,780	3,407,926	-	8,856,706	6,225,498
Education	609,995	235,736	-	845,731	746,423
Sponsorship	221,863	91,482	978,112	1,291,457	1,618,238
Bequests	-	-	263,303	263,303	269,283
Donations	-	500	707,301	707,801	678,972
Membership	-	-	3,839,832	3,839,832	2,562,925
Retail Sales	1,312,457	760,422	-	2,072,879	1,299,493
Catering Sales	200,531	125,673	-	326,204	523,388
Tours Income	220,099	1,281,656	-	1,501,755	1,032,337
Events	200,036	-	30,985	231,021	441,621
Sundry Sales/Income	179,664	43,665	69,835	293,164	279,895
Gain on Sale of Land	-	-	14,651	14,651	1,950,288
Insurance Recoveries	-	-	1,677,273	1,677,273	1,300,000
Grants	-	55,367	16,348,143	16,403,510	10,546,570
<b>Total Revenue</b>	<b>8,393,425</b>	<b>6,002,427</b>	<b>23,929,435</b>	<b>38,325,287</b>	<b>29,474,931</b>
<b>EXPENSES</b>					
Salaries, Wages & On-Costs	6,993,424	4,082,402	5,839,462	16,915,288	16,180,351
Animal Care	433,304	601,528	120,340	1,155,172	1,142,167
Maintenance Consumables	1,212,769	696,168	94,717	2,003,654	1,559,265
Cost of Sales	737,398	348,766	-	1,086,164	560,863
Conservation & Research Projects	-	-	1,337,724	1,337,724	1,450,959
Utilities	463,332	282,064	-	745,396	856,738
Marketing & Promotion	24,195	191	453,587	477,973	732,290
Tours & Experiences	93,515	1,482,983	2,409	1,578,907	992,860
Depreciation	-	-	2,581,298	2,581,298	2,810,581
Other Expenses	253,282	98,513	1,178,651	1,530,446	1,755,389
<b>Total Expenses</b>	<b>10,211,219</b>	<b>7,592,615</b>	<b>11,608,188</b>	<b>29,412,022</b>	<b>28,041,463</b>

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

**STATEMENT OF CHANGES IN EQUITY**  
**FOR THE YEAR ENDED 30 JUNE 2021**

	<b>Fair Value Reserves</b>	<b>Retained Funds</b>	<b>Total Equity</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>
<b>Balance at 1 July 2019</b>	3,136	32,452,787	32,455,923
Profit/(Loss) for the year	-	1,301,118	1,301,118
<b>Other Comprehensive Income</b>			
Change in fair value of financial assets at fair value through other comprehensive income	(12,077)	-	(12,077)
<b>Total Other Comprehensive Income/(Loss) for the year</b>	<b>(12,077)</b>	<b>-</b>	<b>(12,077)</b>
<b>Total Comprehensive Income/(Loss) for the year</b>	<b>(12,077)</b>	<b>1,301,118</b>	<b>1,289,041</b>
<b>Balance at 30 June 2020</b>	<b>(8,941)</b>	<b>33,753,905</b>	<b>33,744,964</b>
<b>Balance at 30 June 2020 as previously reported</b>	<b>(8,941)</b>	<b>33,753,905</b>	<b>33,744,964</b>
Profit/(Loss) for the year	-	8,794,205	8,794,205
<b>Other Comprehensive Income</b>			
Change in fair value of financial assets at fair value through other comprehensive income	69,514	-	69,514
<b>Total Other Comprehensive Income/(Loss) for the year</b>	<b>69,514</b>	<b>-</b>	<b>69,514</b>
<b>Total Comprehensive Income/(Loss) for the year</b>	<b>69,514</b>	<b>8,794,205</b>	<b>8,863,719</b>
<b>Balance at 30 June 2021</b>	<b>60,573</b>	<b>42,548,110</b>	<b>42,608,683</b>

## Appendix A

### CITES LISTED SPECIES

There are approximately 5,600 species of animals and more than 30,000 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 Agriculture, Water and the Environment's cooperative conservation program. Adelaide Zoo currently houses 26 species of CITES I listed animals, while Monarto Safari Park maintains 13 CITES I listed animals.

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

#### **Reptilia**

Komodo dragon	<i>Varanus komodoensis</i>
Radiated tortoise	<i>Astrochelys radiata</i>
Rhinoceros iguana	<i>Cyclura cornuta cornuta</i>
Western swamp tortoise	<i>Pseudemydura umbrina</i>

#### **Aves**

African grey parrot	<i>Psittacus erithacus</i>
Blue-winged macaw	<i>Primolius maracana</i>
Hyacinth macaw	<i>Anodorhynchus hyacinthinus</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>
Yellow-naped amazon	<i>Amazona auropalliata</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</i>
Greater stick-nest rat	<i>Leporillus conditor</i>
Malayan tapir	<i>Tapirus indicus</i>
Mandrill	<i>Mandrillus sphinx</i>
Mesopotamian fallow deer	<i>Dama mesopotamica</i>
Oriental small-clawed otter	<i>Aonyx cinereus</i>
Przewalski's horse	<i>Equus ferus przewalskii</i>
Red panda	<i>Ailurus fulgens fulgens</i>
Ring-tailed lemur	<i>Lemur catta</i>
Scimitar-horned oryx	<i>Oryx dammah</i>
Siamang	<i>Symphalangus syndactylus</i>
Southern white rhinoceros	<i>Ceratotherium simum ssp. simum</i>
Sumatran orangutan	<i>Pongo abelii</i>
Sumatran tiger	<i>Panthera tigris sumatrae</i>
White-cheeked gibbon	<i>Nomascus leucogenys</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 Zoo and Monarto Safari Park.

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

### Extinct in Wild

Scimitar-horned oryx	<i>Oryx dammah</i>
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### Critically Endangered

Addax	<i>Addax nasomaculatus</i>
Aruba Island rattlesnake	<i>Crotalus durissus unicolor</i>
Black rhinoceros	<i>Diceros bicornis minor</i>
Brush-tailed bettong	<i>Bettongia penicillata ogilbyi</i>
Cotton-top tamarin	<i>Saguinus oedipus</i>
Eastern bongo	<i>Tragelaphus eurycerus isaaci</i>
Elongated tortoise	<i>Indotestudo elongata</i>
Orange-bellied parrot	<i>Neophema chrysogaster</i>
Plains wanderer	<i>Pedionomus torquatus</i>
Radiated tortoise	<i>Astrochelys radiata</i>
Regent honeyeater	<i>Xanthomyza phrygia</i>
Sumatran orangutan	<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 painted dog	<i>Lycaon pictus</i>
African grey parrot	<i>Psittacus erithacus</i>
Australian sea lion	<i>Neophoca cinerea</i>
Chimpanzee	<i>Pan troglodytes</i>
Golden lion tamarin	<i>Leontopithecus rosalia rosalia</i>

Goodfellow's tree-kangaroo	<i>Dendrolagus goodfellowi</i>
Javan sparrow	<i>Padda oryzivora</i>
Malayan tapir	<i>Tapirus indicus</i>
Mesopotamian fallow deer	<i>Dama mesopotamica</i>
Przewalski's horse	<i>Equus ferus przewalskii</i>
Pygmy blue-tongue lizard	<i>Tiliqua adelaidensis</i>
Pygmy hippopotamus	<i>Choeropsis liberiensis</i>
Red panda	<i>Ailurus fulgens fulgens</i>
Ring-tailed lemur	<i>Lemur catta</i>
Siamang	<i>Symphalangus syndactylus</i>
Sun conure	<i>Aratinga solstitialis</i>
Swift parrot	<i>Lathamus discolor</i>
Tasmanian devil	<i>Sarcophilus harrisii</i>
Woma python	<i>Aspidites ramsayi</i>
Yarra pygmy perch	<i>Nannoperca obscura</i>
Yellow-naped amazon	<i>Amazona auropalliata</i>

### Vulnerable

African lion	<i>Panthera leo</i>
African spurred tortoise	<i>Centrochelys sulcata</i>
Aldabra giant tortoise	<i>Aldabrachelys gigantea</i>
Asian small-clawed otter	<i>Aonyx cinereus</i>
Barbary sheep	<i>Ammotragus lervia</i>
Binturong	<i>Arctictis binturong</i>
Black-footed rock wallaby (Black-flanked rock wallaby)	<i>Petrogale lateralis</i>
Brazilian tapir	<i>Tapirus terrestris</i>
Broad-headed snake	<i>Hoplocephalus bungaroides</i>

Chattering lory	<i>Lorius garrulus</i>
Cheetah	<i>Acinonyx jubatus</i>
Crimson-bellied conure	<i>Pyrrhura perlata</i>
Dingo	<i>Canis lupus dingo</i>
Giant panda	<i>Ailuropoda melanoleuca</i>
Giraffe	<i>Giraffa camelopardalis</i>
Greater bilby	<i>Macrotis lagotis</i>
Hyacinth macaw	<i>Anodorhynchus hyacinthinus</i>
Komodo dragon	<i>Varanus komodoensis</i>
Malleefowl	<i>Leipoa ocellata</i>
Mandrill	<i>Mandrillus sphinx</i>
Pig-nosed turtle	<i>Carettochelys insculpta</i>
Plains mouse	<i>Pseudomys australis</i>
Pygmy marmoset	<i>Cebuella pygmaea</i>
Quokka	<i>Setonix brachyurus</i>
Rhinoceros iguana	<i>Cyclura cornuta</i>
Southern cassowary	<i>Casuaris casuaris johnsonii</i>
Spur-thighed tortoise	<i>Testudo graeca</i>
White-bellied caique	<i>Pionites leucogaster</i>



## Appendix B

### Professional memberships:

American Association of Zoo Veterinarians – Dr David McLelland  
American College of Zoological Medicine – Dr David McLelland (Diplomate)  
Aquality Water Quality and Water Treatment in Zoos and Aquariums, Convener – Mark Smith  
Association of Avian Veterinarians – Dr David McLelland, Dr Lynley Johnson and Dr Kathryn Johnson  
Association of Avian Veterinarians Australasian Committee- Dr Kathryn Johnson  
Association of Reptilian and Amphibian Veterinarians – Dr Ian Smith and Dr Kathryn Johnson  
Association of Zoos and Aquariums (AZA) – Mark Smith  
Association of Zoos and Aquariums (AZA) Nutrition Advisory Group (NAG) - Mark Snowball (Affiliate Member)  
Association of Zoos and Aquariums (AZA) SAFE Sharks Advisory Board – Mark Smith  
Association Zoo Horticulturists (AZH) Jeff Lugg  
Australian and New Zealand College of Veterinary Scientists – Dr Ian Smith, Dr David McLelland, Dr Lynley Johnson, Dr Jenny McLelland, Dr Kathryn Johnson  
Australian Mammal Society – Dr Liberty Olds  
Australian Society of Herpetologists – Dr Phil Ainsley  
Australian Veterinary Association – Dr Jenny McLelland and Dr Kathryn Johnson  
Children’s University Advisory Board – Board member – Elaine Bensted  
Coast 4Cs, Founding Board Member – Mark Smith  
Comparative Nutrition Society – Mark Snowball  
Conservation Centers for Species Survival (C2S2) and Steering Committee – Peter Clark on behalf of Monarto Safari Park  
Conservation Council of South Australia – Zoos South Australia  
Conservation Planning Specialist Group (International Union for the Conservation of Nature Species Survival Committee) – Peter Clark  
Ecological Society of Australia – Dr Liberty Olds  
Elasmobranch Husbandry Initiative, Convener – Mark Smith  
Environment Institute Advisory Board – Board member – Elaine Bensted  
European Association of Zoos and Aquaria (EAZA) Nutrition Group (ENG) - Mark Snowball  
European Association of Zoo and Wildlife Veterinarians – Dr Ian Smith  
European College of Zoological Medicine – Dr David McLelland (Diplomate - Zoo Health Management; Member of ECZM Scientific Committee and Examinations Committee)  
Fellow of the Royal Entomological Society of London – Peter Clark  
International Union for the Conservation of Nature Special Survival Commission Tortoises and Freshwater Turtle Specialist Group – Dr Phil Ainsley  
Marna Banggara – Executive Committee – Peter Clark  
Nutrition Society of Australia – Mark Snowball (Registered Animal Nutritionist)  
Oceanario de Lisboa, Board Advisory Committee – Mark Smith  
Regional Development Australia Murraylands and Riverland (RDAMR) – Board member – Elaine Bensted

Society for the Study of Amphibians and Reptiles – Dr Phil Ainsley  
South Australian Herpetology Group – Dr Phil Ainsley  
Species 360 Board Selection Committee – Mark Smith  
Sydney Zoo – Chairman, Animal Welfare and Ethics Committee – Peter Clark  
The Australian Rhino Project (TARP) – Board Member – Elaine Bensted  
Thylation Ltd Board – Board member – Elaine Bensted  
Turtle Survival Alliance – Dr Phil Ainsley  
University of South Australia (UniSA) Business School Program Advisory Committee – Committee member – Elaine Bensted  
Veterinary Nurses Council of Australia – Dianne Hakof  
Veterinary Surgeons Board of South Australia – it is compulsory for all Zoos SA veterinarians to hold this.  
Wildlife Disease Association – Dr Ian Smith, Dr David McLelland, Dr Jenny McLelland (Council Member-at-Large), Dr Lynley Johnson, Dr Jerome Kalvas and Dr Kathryn Johnson  
Wildlife Ethics Committee – Dr Ian Smith, Dr David McLelland, Dr Lynley Johnson, Deb Barry and Michelle Birkett  
Wildlife Health Australia – Dr Ian Smith, Dr David McLelland, Dr Jenny McLelland, Dr Lynley Johnson and Dr Jerome Kalvas  
World Association of Zoos & Aquariums (WAZA) – Committee member Conservation and Environmental Sustainability Committee and Membership and Ethics Committee – Elaine Bensted  
World Association of Zoos and Aquariums - Zoos South Australia  
ZAA Australian Species Management Program - Gert Skipper (Animal Management Committee member, Carnivore and Small Exotic Mammal TAG Co-convenor) and Jodi Buchecker (Australian Mammals TAG Co Convenor)  
Zoo and Aquarium Association – Peter Clark, Sarah Brown, Beth Pohl  
Zoo and Aquarium Association (ZAA) Vice President and Board Member, Chair Finance, Audit & Risk Committee – Elaine Bensted  
Zoo and Aquarium Association, Horticulture SAG Chair - Jeff Lugg  
Zoo and Aquarium Associations Ethics Committee – Dr Phil Ainsley  
Zoo and Aquarium Association Veterinary Specialist Advisory Group (VetSAG) – Dr Ian Smith, Dr David McLelland (VetSAG Co-Convenor), Dr Lynley Johnson, Dr Jennifer McLelland, Dr Jerome Kalvas, Dr Oliver Funnell, Dr Kathryn Johnson, Mark Snowball.  
Zoo Animal Health Reference Group Chief Veterinary Officer appointee – Dr Ian Smith

## Appendix C

### **ZAA Species Management program holders by Zoos SA employees:**

Black-winged stilt, *Himantopus himantopus* - Vaughan Wilson, Species Coordinator

Black-flanked rock-wallaby, *Petrogale lateralis* – Jodi Buchecker, Species Coordinator

Brush-tailed bettong, *Bettongia penicillata* - Dr Liberty Olds, Species Coordinator

Chimpanzee, *Pan troglodytes* - Beth Pohl, Species Coordinator

Fennec fox, *Vulpes zerda* – Arlia Hayward, Studbook Keeper

Greater bilby, *Macrotis lagotis* - Jodi Buchecker, Species Coordinator South Australia

Greater stick-nest rat, *Leporillus conditor* - Jodi Buchecker, Species Coordinator

Mainland tammar wallaby, *Macropus eugenii eugenii* - Jodi Buchecker, Species Coordinator

Southern hairy-nosed wombat, *Lasiorhinus latifrons* - Dr Rachel Robbins, Species Coordinator

Spotted hyena, *Crocuta crocuta* – Anna Bennett, Species Coordinator

White-browed woodswallow, *Artamus leucorhynchus* - Vaughan Wilson, Species Coordinator

Yellow-footed rock-wallaby, *Petrogale xanthopus xanthopus* - Jodi Buchecker, Species Coordinator

## Appendix D

### **Zoos SA staff representatives on species recovery teams and other key conservation stakeholder groups**

Adjunct positions at the School of Animal and Veterinary Science, University of Adelaide: Senior Lecturer- Dr Smith and Dr McLelland; Lecturer Dr McLelland, Dr Johnson, and Dr Kalvas

Academic Associate at the Faculty of Veterinary & Agricultural Sciences, University of Melbourne: Dr Smith.

Black-flanked rock-wallaby, *Petrogale lateralis lateralis*, State: B. Pohl, L. Olds, I. Smith, L. Stockburger

Bushfire Recovery Wild Welfare Response Working Group: Dr P. Ainsley

Greater bilby, *Macrotis lagotis*, State: J. Buchecker

Kangaroo Island dunnart, *Sminthopsis aitkeni*, State: Dr L. Olds

Malleefowl, *Leipoa ocellata*: Observer status

Marna Bangarra Bettong Translocation Steering Committee: Dr L. Olds

Marna Bangarra Executive Steering Committee: P. Clark

Marna Bangarra: P. Clark, Dr L. Olds and Dr I. Smith

Murraylands Threatened Flora Multiple spp., State: Dr P. Ainsley

Orange-bellied Parrot, *Neophema chrysogaster*, National: C. Crittle (Chair of Captive Management Group), D. McLelland (Veterinary Technical Reference Group)

Plains Wanderer, *Pedionomus torquatus*, National: P. Clark, Dr L. Olds

Pygmy Blue-tongue Lizard, *Tiliqua adelaidensis*, State: Dr P. Ainsley

Regent Parrot, *Polytelis anthopeplus*, State: Dr D. McLelland

SA Mammal Translocation Working Group: Dr L. Olds

South Australian Nature Alliance: Dr L. Olds

Southeast Red-tailed Black-cockatoo, *Calyptorhynchus banksii graptogyne*, National: Dr L. Olds

Threatened Mallee Bird Steering Committee Multiple spp., National: Dr L. Olds

Western Swamp Tortoise, *Pseudemydura umbrina*, WA State: Dr P. Ainsley

Birdlife Australia Hooded Plover Monitoring Program, veterinary support (Dr McLelland, Dr Kalvas, Dr Kokosinska)

Arid Recovery, veterinary support (AHD)

Australian Wildlife Conservancy, veterinary support (AHD)

DEW Marine Mammal Response, veterinary support (AHD)

## 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, zoological 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 of Environment and Water, the South Australian Museum and Zoos SA. A number of Zoos SA staff members serve on the WEC, including Ian Smith (Deputy Chair), David McLelland, Lynley Johnson, Deb Barry and Michelle Birkett.

#### Research Projects

Projects that Zoos SA have been, or continue to be, involved with are listed below under the major collaborator.

#### **SA Department of Environment and Water**

Health monitoring and biotelemetry of Regent Parrots (*Polytelis anthopeplis*) in the SA Riverland.

#### **University of Adelaide**

Prognostic factors in bushfire-affected koalas on Kangaroo Island (Dr Oliver Funnell, Dr Jennifer McLelland, Dr Ian Smith)

Total body surface area of koalas calculated by computed tomography for evaluation of burn injuries (Dr Oliver Funnell, Dr Jerome Kalvas, Dr Jennifer McLelland, Dr Ian Smith)

Infectious disease surveillance in bushfire affected koalas on Kangaroo Island (Dr Oliver Funnell, Dr Jennifer McLelland, Dr Ian Smith)

Wayne Boardman, PhD Project completed: Grey Headed Flying Fox (disease epidemiology).

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.

Brianna Golder-Dewar and Jordyn Triggs, Honours Projects completed: Development of welfare assessment tools for captive reptiles (agamid lizards, pythons, freshwater turtles, land tortoises).

Narelle Jones and Jessica Turner, Honours Candidates: Evaluating the validity of a taxon-tailored welfare assessment tool for Testudinidae. (Dr David McLelland)

Evie Dunston, Honours Candidate: Kangaroo Island bushfire affected koalas: an analysis of demographic and triage health data (Dr Oliver Funnell, Dr Jennifer McLelland, Dr Ian Smith)

Jade Wastell-Stevens, and Dr Lynley Johnson; Clinical Research Project Extension: Hormonal cyclic profiling using non-invasive sampling techniques in Southern White Rhinoceros. (Dr Lynley Johnson)

Rachael Thompson: Causes and patterns of mortality in zoo birds at Adelaide Zoo (Dr David McLelland, Dr Anna Kokosinska)

Paul Christensen: Serum cell free DNA levels as a prognostic indicator of bushfire affected wildlife (Dr Ian Smith)

Meghan Hombsch: Evaluation of ascorbate (vitamin C) levels in wild and captive macropods (Dr David McLelland, Mark Snowball)

Joanna Nelson: The role of antipsychotic tranquilizers in wildlife and zoo medicine – a critical review of the literature (Dr David McLelland)

Suwen Simon Pok: Investigating the causes of neonatal mortality in grey-headed flying foxes (*Pteropus poliocephalus*) in Adelaide (Dr David McLelland, Dr Anna Kokosinska)

Niv Verco: Microchip-associated sarcoma in two Amazonia tree boas (Dr David McLelland, Dr Anna Kokosinska)

#### **Flinders University**

Tara Daniels, PhD Candidate: What makes for a good translocation: A case study of the Pygmy Bluetongue.

#### **Murdoch University**

Jessica Rendle, PhD Project completed: Epidemiology of the clinical syndrome lumpy jaw in captive macropods: influence of housing and husbandry.

#### **University of Wisconsin - Madison**

Graham Banes: The Orangutan Conservation Genetics Project

#### **Publication list**

Boardman, WSJ, Baker, ML, Boyd, V, Crameri, G, Peck, GR, Reardon, T, Smith IG, Caraguel CGB, Prowse TAA. Serological evidence of exposure to a coronavirus antigenically related to severe acute respiratory syndrome virus (SARS-CoV-1) in the Grey-headed flying fox (*Pteropus poliocephalus*). *Transbound Emerg Dis.* 2021; 68: 2628– 2632. <https://doi.org/10.1111/tbed.13908> Gartrell, B., Argilla, L.S., Chatterton, J., Dennison-Gibby, S., Digby, A., Fulton, J., Hunter, S., Johnson, K.L., Jolly, M. & Lenting, B. 2021. Surgical repair of a meningoencephalocoele in a kākāpō (*Strigops habroptilus*). *New Zealand Veterinary Journal.* 69(4), 247-254.

Griffith JE, Stephenson T, McLelland DJ, Woolford L. 2021. Hypertrophic osteopathy in South Australian koalas (*Phascolarctos cinereus*) with concurrent pulmonary actinomycosis. *Australian Veterinary Journal.* 99(5):172-177. Johnson, L., Khong T. Y., Rallis A., Woolford L., Brand C., Smith, I. 2020, Placenta Accreta in an Orangutan (*Pongo abelii*) and a Chimpanzee (*Pan troglodytes*), *Journal of Comparative Pathology*, 174: 13-17. <https://doi.org/10.1016/j.jcpa.2019.10.011>

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invasiveness and antimicrobial resistance of *Salmonella enterica* subspecies isolated from wild and captive reptiles. *Zoonoses Public Health*. doi: 10.1111/zph.12820.

Rendle J, Jackson B, Hoorn SV, Yeap L, Warren K, Donaldson R, Ward SJ, Vogelnest L, McLelland D, Lynch M, Vitali S. 2020. A retrospective study of Macropod Progressive Periodontal Disease ("lumpy jaw") in captive macropods across Australia and Europe: Using data from the past to inform future macropod management. *Animals*. 10(11):1954.

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<https://doi.org/10.1111/jvp.12933>

Weiss, S., Taggart, D., Smith, I., Helgin, K., Eisenhofer, R. Host reproductive cycle influences the pouch microbiota of wild southern hairy-nosed wombats (*Lasiorninus latifrons*). *Animal Microbiome* 3, 13 (2021). <https://doi.org/10.1186/s42523-021-00074-8>

Whittaker AL, Golder-Dewar B, Triggs JL, Sherwen SL, McLelland DJ. 2021. Identification of animal-based welfare indicators in captive reptiles: a Delphi consultation survey. *Animals*. 11(7):2010. doi: 10.3390/ani11072010.

Yip S, Mohammadi-Dehcheshmeh M, McLelland D, Boardman W, Saputra S, Ebrahimie E, Weyrich L, Bird P, Trott D. 2021. *Porphyromonas* spp., *Fusobacterium* spp., and *Bacteroides* spp. dominate microbiota in the course of macropod progressive periodontal disease. *Scientific Reports*. In Press.



## Appendix F

### Conference presentations and workshop attendance

July 2020, European Association of Zoo and Wildlife Veterinarians (EAZWV), Zoo and Wildlife Health Conference, online. Dr David McLelland.

August 2020, Tasmanian Devil Stakeholder Meeting, online. Beth Pohl and Louise Stockburger.

September 2020, Wellness Tourism Summit, online, Sarah Brown

October 2020, 2020 ZAA TAG meeting opening - Policy and Procedure updates, online. Beth Pohl, Anna Bennett and Louise Stockburger.

October 2020, 2020 ZAA AUS Mammal TAG & Primate TAG Meetings, online. Beth Pohl and Louise Stockburger. November 2020 Conservation Centers for Species Survival Fall meeting, Virtual - Peter Clark

October 2020, World Zoo and Aquarium Association conference, online. Elaine Bensted.

November 2020 Conservation Centers for Species Survival Fall meeting, online - Peter Clark

January 2021, European Association of Zoos and Aquaria (EAZA) Zoo Nutrition Conference, online. Mark Snowball.

March 2021, ZAA Species Management Refresher, online. Beth Pohl

May 2021, Australian Veterinary Association Annual Conference 'VetFest', online. Dr Jennifer McLelland.

May 2021, Zoos and Aquarium Association Conference, online. Elaine Bensted, Peter Clark, Sarah Brown, Dr Phil Ainsley, Dr Rachel Robbins, Michelle Hubbard, Chelsea Martin.

June 2021, Zoo and Aquarium Association Veterinary Specialist Advisory Group Annual Conference, online. Dr Ian Smith, Dr David McLelland, Dr Jennifer McLelland, Dr Jerome Kalvas, Dr Lynley Johnson, Dr Kathryn Johnson.