

THANKS A TONNE

Annual Report 2020
Zoological Society of Ireland



PAST PRESIDENTS OF THE ZOOLOGICAL SOCIETY OF IRELAND

**Presidents of the Zoological Society of Ireland*, 1833 to 1837, and 1994 to date;
and the Royal Zoological Society of Ireland, 1838-1993.**

Sir Philip Crampton	1833*	Prof. A. Francis Dixon	1927-31
The Duke of Leinster	1834*	Sir William Taylor	1932-33
Captain Portlock	1835-36*	Lord Holmpatrick	1934-42
Sir Philip Crampton	1837-38	Dr. R. Lloyd Praeger	1942-43
The Archbishop of Dublin	1839-40	Capt. Alan Gordon	1944-50
Sir Philip Crampton	1841-42	Prof. John McGrath	1951-53
The Archbishop of Dublin	1843-44	Dinnen B. Gilmore	1954-58
Sir Philip Crampton	1845-46	G.F. Mitchell	1959-61
The Duke of Leinster	1847-48	N.H. Lambert	1962-64
Sir Philip Crampton	1849-50	G. Shackleton	1965-67
The Marquis of Kildare	1851-52	Prof. P.N. Meenan	1968-70
Sir Philip Crampton	1853-54	Prof. J. Carroll	1971-73
Lord Talbot of Malahide	1855-56	A.E.J. Went	1974-76
Sir Philip Crampton	1857-58	Victor Craigie	1977-80
Doctor D.J. Corrigan	1859-63	Alex G. Mason	1981-83
Viscount Powerscourt	1864-69	Aidan Brady	1984-86
The Earl of Mayo	1870-71	John D. Cooke	1987-89
Earl Spencer	1872-74	Padraig O Nuallain	1990-91
J.W. Murland	1875-78	Prof. David J. McConnell	1992-93
Sir John Lentaigne C.P.	1879-84	Prof. David J. McConnell	1994-95*
Rev. Dr. Haughton F.R.S.	1885-89	Joe McCullough	1996-98*
Sir Robert Ball F.R.S.	1890-92	Sean Cromien	1998-2001*
Dr. Samuel Gordon	1893-97	Michael O'Grady	2001-04*
Field Marshal Earl Roberts	1898-1902	Barry Murphy	2004*
Prof. D.J. Cunningham F.R.S.	1903	Michael MacNulty	2005-08*
Earl of Dudley	1904-05	Derek McCleane	2008-11*
Rt. Hon. Jonathon Hogg D.L.P.C.	1906-10	Margaret Sinanan	2011-14*
Sir Charles Ball	1911-15	Tom Dunphy	2014-17*
W.E. Peebles	1916	Michael Daly	2017-20*
Sir Frederick Moore	1917-21	Ann Keenan	2020*
Sir Robert H. Woods	1922-26		

NOTICE OF ANNUAL GENERAL MEETING

NOTICE is given that the annual general meeting of the Zoological Society of Ireland will be held at Dublin Zoo on 16 September 2021 at 18:00 for the following purposes:

Ordinary Business:

1. To receive and consider the statutory financial statements for the financial year ended 31 December 2020 (the “Financial Statements”), the report of the directors on the Financial Statements (the “Directors’ Report”) and the report of the statutory auditors on the Financial Statements and the Directors’ Report.
2. To review the affairs of the Company.
3. To re-elect John McMahon, who retires in accordance with the Articles of Association of the Company (the “Articles”) and is eligible for re-election, as a director of the Company.
4. To re-elect Carmel O’Connor, who retires in accordance with the Articles and is eligible for re-election, as a director of the Company.
5. To note that Dorothy Kilroy retires as a director of the Company.
6. To re-appoint Deloitte Ireland LLP as statutory auditors of the Company.
7. To authorise the directors to approve the remuneration of the statutory auditors.

BY ORDER OF THE BOARD

John Sweeney
Secretary

Registered Office

The Zoological Society of Ireland
Dublin Zoo
Phoenix Park
Dublin 8

Dated 30 July 2021

Note: A member entitled to attend and vote is entitled to appoint a proxy using the form set out in section 184 of the Companies Act 2014 (enclosed) to attend, speak and vote on his or her behalf. A proxy need not be a member of the Company. Proxies must be received at the registered office of the Company not less than 48 hours before the time of the meeting.

LETTER FROM THE PRESIDENT

Dear Member,

It's with a great sense of honour and privilege that I step into the position as President of ZSI, following in the footsteps of so many who have guided the Society through the last 190 years. I look forward to working with the directors, Board and governors of both Dublin Zoo and Fota Wildlife Park. Dublin Zoo celebrates its 190th anniversary as I write this in 2021, and all of us in ZSI look forward to the 10-year countdown to the bicentennial of this amazing institution.

The Board of the Zoological Society of Ireland presents the twenty-seventh annual report, together with the consolidated audited financial results of Dublin Zoo and Fota Wildlife Park, for the year ended 31 December 2020.

This was in many ways a truly remarkable and unprecedented year for both Dublin Zoo and Fota Wildlife Park – as it was in many ways for all of Irish society. It was a year of learning, resilience and change. The financial hardship of the prolonged periods of closure due to the Covid-19 pandemic resulted in a reduction of more than €10 million in gate, annual pass and ancillary income, with significant operating losses being incurred. This required hard decisions on staffing and operations, particularly early in 2020. As charities reliant on income from the entrance gates, we had to ensure that there were sufficient funds to care for the animals at all times. When we were allowed to reopen, we had to limit visitor numbers to enable strict adherence to social distancing guidance in order to provide for the health and safety of our staff, volunteers and visitors. In the circumstances, we achieved reasonable visitor attendances of 497,483 in Dublin and 384,901 in Fota.

We became adept at responding to change, and I would like to acknowledge the entire team for their support and forbearance, those working with the animals and in other areas of our operations while practising social distancing, and those working from home. The smooth reopening of the Zoo and the Wildlife Park after the lockdowns was admirable and a tribute to the resilience and commitment of our teams.

In our different approaches to adapt and respond to the extreme difficulties of 2020, both Dublin Zoo and Fota Wildlife Park found opportunities to confirm their fundamental purpose of conservation, animal welfare, and as much loved and valued public attractions. While following all public health guidance, Fota's visitation numbers from June to September were the highest in our history. Dublin Zoo dramatically extended its digital capability and provided extensive virtual learning classes to schools throughout the country and worldwide.

However, with financial pressures seriously increasing, particularly in Dublin Zoo, exceptional measures were required, and the decision was made in the autumn to launch the "Save Dublin Zoo" fundraising campaign. The media response and the outpouring of support from the Irish public were phenomenal, and we were overwhelmed and overjoyed by the reinforcement of Dublin Zoo and Fota Wildlife Park as important national attractions much loved and valued by the people of Ireland. We are also extremely grateful to the government for their generous pledge of support for Dublin Zoo and Fota Wildlife Park.

Another major change for Dublin Zoo was to bid farewell to Leo Oosterweghel, who retired after a remarkable period as director, through which he led a visionary transformation in Dublin Zoo. We welcome his successor, Dr Christoph Schwitzer, the 21st director of the Zoo. A summary of their achievements follows.

On behalf of the Board, I acknowledge with thanks the enormous contribution of Leo and Christoph, and Sean McKeown, Director of Fota Wildlife Park, for steering their teams through these unprecedented times. I would also like to thank all of the staff and volunteers for their tremendous work and support during the year. Much was asked of them and much was given in 2020. I would also like to pay tribute to our very loyal members for their support throughout the year.

Finally, in my first year as President, I would like to acknowledge the support, dedication, experience and generosity of my colleagues on the Zoological Society of Ireland Board and the Board of Governors of Fota Wildlife Park. There are challenging but exciting times ahead, and I am confident that we are in a strong position and look forward to working with the entire team over the coming years.

Ann Keenan
President
Zoological Society of Ireland



(Above) A family visiting Dublin Zoo after the re-opening



On 31 July 2020 Leo Oosterweghel retired as director of Dublin Zoo after nineteen years in the position. He arrived at a pivotal moment in the Zoo's history and his vision, extraordinary energy and drive,

along with international connections to some of the best consultants in modern zoo development contributed to the remarkable transformation we have witnessed. Leo empowered the Dublin Zoo Team and promoted them in their areas of expertise through training opportunities and delegation. Immersive animal habitats drew visitors into a world that reflected the animals' natural environment. He also created discovery and learning facilities to support our fundamental role in education and conservation. Professional visitors came to study the work of the Dublin Zoo Team, especially with regard to the elephants and the gorillas. Visitor numbers rose steadily from 608,000 in 2001 to a peak of 1,272,602 in 2019.

In his final weekly Zoonooz communication to the staff, Leo wrote, 'Together we have moved mountains over the past 19 years and it has been an absolute privilege working with you all.' Dublin Zoo and the Board of the Zoological Society of Ireland sincerely thank Leo Oosterweghel for his untiring service. In recognition of his achievements, Leo was admitted to the Fellowship of the Zoological Society of Ireland. On behalf of the Board, I wish himself and his partner, Colette, very well on his retirement.



On 1 August 2020 Dr Christoph Schwitzer took up the directorship of Dublin Zoo. With a background in conservation and research, and links to international zoo associations, Christoph has arrived with

excellent credentials to lead the Dublin Zoo Team on to its next challenge. Previously, Christoph was Chief Zoological Officer and Deputy Chief Executive of Bristol Zoological Society (BZS), and before that he was BZS's Director of Conservation and Head of Research. Earlier in his career, Christoph was part of the primatological research group at Cologne Zoo, Germany, and spent two years in Madagascar heading a lemur research and conservation programme. He is a Deputy Chair of the IUCN Primate Specialist Group and is Vice President of the Association Européenne pour l'Etude et la Conservation des Lémuriens, a consortium of European zoos dedicated to lemur conservation. He is a member of the EAZA Conservation Committee and the EAZA Prosimian TAG, and is an adviser to the EAZA Callitrichidae TAG. In 2019 he was appointed to the Chair of Council of the British and Irish Association of Zoos and Aquariums (BIAZA).

In the October 2020 edition of the EAZA bulletin, Christoph outlined his philosophy towards Dublin Zoo: 'I'm a conservationist at heart. I want to shift paradigms from being a zoo that does conservation to a conservation organization that runs a zoo.' On behalf of the Board, I welcome Christoph and look forward to working with him in the challenging times ahead.

DUBLIN ZOO : DIRECTOR'S REPORT

2020 was an extraordinary year for Dublin Zoo. Due to the Covid-19 pandemic and following government directives, Dublin Zoo was closed for nearly 18 weeks during the year. We had to restrict visitor numbers during 24 weeks and the only time the Zoo was open under normal circumstances was in January and February, the quietest time of our year. This is only the third time in the Zoo's history when it was closed for an extended period; the first time was for two weeks during the Easter Rising in 1916 and the second time was for nine weeks in 2001 during the Foot and Mouth crisis.

The total number of visitors for the year including the final week of Wild Lights in January was 497,483. This compares with 1,272,602 visitors (including Wild Lights) in 2019, a drop of 775,284 visitors, or 61 percent. Consequently, Dublin Zoo was very much in survival mode and the entire Zoo team rose to the challenge. Towards the end of the year, we organised a fundraising campaign 'Save Dublin Zoo' and raised a remarkable €2.8 million in donations in a very short period of time. The government also supported us with a direct grant of €550,000 and pledged a further €2 million to be spent on the capital works that had to be postponed.

When news of the novel coronavirus first filtered through in February, Dublin Zoo immediately took all steps necessary to ensure the health, safety and welfare of all employees. Expenditure that did not impact sound animal care was temporarily suspended: all capital works were delayed or cancelled, all non-essential minor works and maintenance were postponed, and non-essential staff travel was cancelled in order to ensure that there would be sufficient financial reserves to bridge a period of closure.

Our internal communication process kept staff informed of developments and the Facilities Team organised additional cleaning and maintenance of staff facilities.

On 12 March the government issued a directive implementing the closure of tourism sites, a reduction of workforce contacts, an introduction of remote working practises and teleconferencing where possible, and a restriction on travel for meetings. Dublin Zoo introduced these measures. The Zoo was closed from 13 March to 1 June inclusive. With no income, difficult measures concerning staffing were unfortunately necessary. Essential staff were put on reduced working hours while others were temporarily laid off. Some staff were requested to work from home. A new routine was established with the focus on the care of the animals, keeping the zoo secure, continuing to communicate with the outside world, and ensuring the provision of essential supplies and maintenance. Thankfully there was no interruption to the supply of animal food.

The work routines of the four Animal Care Teams were adjusted to keep them separate from each other in order to prevent potential cross-infection and to ensure that in the event of sickness only a single unit rather than the entire operation was compromised. Each team used its own lunch, wash and meeting rooms, and facilities were upgraded to ensure they had what they needed. With guidance from the Veterinary Team, strict protocols were put in place for keepers who were working in close contact with animals, especially the primates and the felines, in order to prevent zoonotic spread from keeper to animal.

This included wearing masks during feeding and cleaning, changing gloves often, regular hand-washing and disinfection. When a tiger in the Bronx Zoo in the United States tested positive for the SARS-CoV-2 virus, biosecurity measures were upgraded for the Animal Care Team working with Asian lion, snow leopard and Amur tiger.

Dublin Zoo was allowed to reopen to the public on 2 June and followed all government guidelines to ensure the health and safety of staff and visitors. The number of visitors was limited to 1,000 per day in two shifts, one in the morning and one in the afternoon. This was later increased to 1,800 per day in shifts. Tickets had to be pre-purchased or, in the case of annual pass holders, pre-booked, for a specific timeslot to reduce contact with staff and to facilitate contact tracing. A one-way walking route was created and called the 'Outdoor Safari Trail'. The route began at the annual pass entrance, followed the Kaziranga Forest Trail, then moved anti-clockwise around the African Plains, and finally along the far side to the exit. All indoor facilities and habitats were closed. Play areas also remained closed, and contact with zoo staff was kept to a minimum. We were able to bring back some staff who had been temporarily laid off.



Following reviews and feedback, changes were made to improve the visitor experience. Retail and catering for takeaway food were opened and the Zoo opened on Tuesday and Wednesday evenings until 8.00 pm to generate further visitation. The late opening proved very successful with an average of 1,000 people coming in between 5.30 pm and 8.00 pm on each evening.

In August we gradually increased the number of tickets sold and were able to relax some of the restrictions where it was safe to do so. By now only the fully or mostly enclosed areas of the site were still inaccessible to visitors. We were encouraged by visitors commenting very positively on their visit and on the measures put in place to keep everyone safe.

On 21 October the entire country was once more moved to a Level 5 lockdown and the Zoo was closed from 22 October to 3 December inclusive. Again all non-essential work was suspended. During this lockdown, the Marketing Team led the 'Save Dublin Zoo' fundraising campaign, the Discovery and Learning Team continued to deliver and develop popular online programmes, and the Retail and Visitor Services Team coordinated a massive mail out of animal adoption packages as part of the fundraising activities.

When the Zoo was allowed to reopen on 4 December, the team was well-rehearsed in managing the restrictions in a Covid-19-secure way and it went very smoothly. New contactless hand-sanitizing stations were installed prior to reopening.

ONE WAY

In compliance with public health guidance, it was recommended that visitors wear face masks on-site where staying two metres apart from people was difficult. Christmas lights went up during the month at the entrance and around Haughton House to create a festive atmosphere. The Zoo remained open until 31 December when it was closed again under Level 5 restrictions.

Throughout the Covid-19 pandemic, the Zoo was able to avail of a number of support measures put in place by the government, including the Temporary Wage Subsidy Scheme and the Employment Wage Subsidy Scheme. These instruments significantly helped us cover our high fixed costs in an extraordinarily difficult year, and we are grateful to the Government of Ireland for their swift action.



(Above) Signage to show one-way trail route

FUNDRAISING



A public fundraising campaign entitled ‘Save Dublin Zoo’ was launched on 18 November to raise vital funds, and all monies raised were for the care of the animals. There was a nationwide public relations and advertising campaign across all media.



The campaign included the sale of animal adoption packs and ‘Save Dublin Zoo’ hoodies. The media response and the outpouring of support from the Irish public were phenomenal. Within 12 hours one million euro was raised. In total, more than €2.8 million was raised by the end of the year specifically for animal care and welfare. In addition, gifts in kind were offered from various businesses, including browse, hay and straw, meat, fruit and disinfectant. And, as a result of intensive lobbying, the government pledged €2.55 million of support for Dublin Zoo, €2 million of which was for finishing capital projects that had to be halted due to the pandemic. Minister of State for Heritage and Electoral Reform, Malcolm Noonan, was reported as saying ‘The State does not ordinarily provide funding to the zoo sector but this has been an incredibly challenging year due to the pandemic, and our support recognises the vital role played by our zoos as networks for global conservation of biodiversity, as centres of learning and places where lifelong memories of families and children are made.’

Minister of State for the Office of Public Works, Patrick O’Donovan, said about Dublin Zoo and Fota Wildlife Park ‘The Government is happy to step up and play its part in securing the immediate future of these important national institutions and to bridge the financial gap until hopefully the gates will open again and visitors can come and enjoy these wonderful attractions as they have done for generations.’

The staff of Dublin Zoo are to be acknowledged and thanked for their unwavering support in the face of the extreme cost-saving measures that we had to take to keep the Zoo afloat and ensure its survival. They maintained very high standards in animal care and health and safety. Confirmed Covid-19 case numbers among Dublin Zoo staff were low and staffing remained manageable throughout the pandemic. Zoos around the world have been badly affected by the pandemic and many are facing threats to their survival because of the prolonged periods of closure. In Dublin Zoo it is hoped that with all of the support we received, there will be a gradual return to normal operations during 2021 with the intention to restore full pre-Covid-19 working hours as soon as it can realistically be done.



*(Left and far right) Save Dublin Zoo campaign graphic
(Right) Staff and volunteers packing animal adoption packs and hoodies*



KEEP US AFLOAT

HELP SAVE DUBLIN ZOO



SAVE
DUBLIN
ZOO

ANIMAL CARE

The big event for the Animal Care Team this year was the successful transfer to Sydney Zoo of two Asian elephant bulls (*Elephas maximus*), Ashoka and Kavi. They were both born in Dublin Zoo in 2014, and leaving the herd is a natural process for young bulls in the wild. In Australia, they were to be part of a mini-bachelor group. The transportation was a very complex undertaking and, despite the obstacles put in its way by the pandemic, it was a significant achievement for the Dublin Zoo Team. In January the bulls were moved to Britain to spend three months in a quarantine facility away from the Dublin Zoo herd before moving on to Australia. Many weeks of crate training paid off, and loading the animals for this stage of the journey was flawless. Members of the Dublin Zoo Elephant Team accompanied them. By moving the animals well before Brexit, Dublin Zoo avoided being confronted by a possible new set of importation rules. The outbreak of the Covid-19 pandemic caused flight cancellations and the bulls remained in Britain until October. During that time, members of the Elephant Team including Gerry Creighton, Raymon Mentzel and Albert Palazuelos, with the support of our elephant consultant, Alan Roocroft, worked with the British keepers and the Sydney Zoo team to care for the elephants for the extended period. We are particularly indebted to Dr Jonathan Cracknell for his personal and institutional support under such difficult circumstances.

The bulls' crate training continued. Their tusks were trimmed and the edges rounded off to reduce the risk of injury during travel. By the time transport became possible on 22 October, the elephants were familiar with the transport environment. It went very well and the animals were safely unloaded in Sydney Zoo.



They were introduced to Saigon, a 62-year old circus female who had been on her own for a long time. She adopted the two bulls, and there was some lovely footage from 7News Australia of Kavi and Ashoka meeting their new companion at Sydney Zoo for the first time. Following the departure of the bulls in January, the herd in Dublin settled down very well and normal care continued with foot care taking priority with the adult animals. A plan for the future of our herd is being written.

In February, southern white rhinoceros (*Ceratotherium simum simum*) Ashanti gave birth to a healthy male calf. During the summer he was successfully introduced to the rest of the herd. Such introductions can be very challenging, but the process was very well managed by the team. The introduction of the calf to the breeding male was still pending at the end of 2020.

In spring two healthy male red ruffed lemurs (*Varecia rubra*) were born. In September three older males left for Lyon Zoo in France. Red ruffed lemurs are classified as Critically Endangered.

(Above) Asian elephants Kavi, Ashoka and Samiya on their first birthday

They only occur on the Masoala Peninsula in tropical northeastern Madagascar where their numbers are dropping due to intense habitat destruction, mainly triggered by the illegal rosewood trade and poaching. This species is heavily reliant on large fruiting trees with wide crowns that can support a whole lemur group at a time; unfortunately, those are usually the first trees to fall victim to illegal logging.

In June our fully grown male California sea lion (*Zalophus californianus*) died unexpectedly and the cause of death was inconclusive. The same month two male California sea lion pups were born. Both thrived. Meanwhile, three sea lions born in 2019 were transferred, the male to Amiens Zoo in France, and the two females to the marine park Oceanogràfic in Valencia, Spain. During the year the supply, storage and management of fish for the sea lions was overhauled. A new freezing unit was acquired, and a new fish quality analysis process was developed with the help of Dr Orla Cahill, lecturer in Microbiology and Allergen Management at the Technological University Dublin. A new feeding regime was implemented in order to increase the total amount of fish consumed and to spread feeding sessions out over the day.

In June the Annam leaf turtle (*Mauremys annamensis*) produced five eggs, which were placed in an incubator, and in August Dublin Zoo had its first-ever hatchling of this Critically Endangered species. There may now be less than 50 adult Annam leaf turtles left in their wild habitat, which has probably been reduced to one small area of wetland. The species is among the world's most endangered turtles.



Until recently, the Annam leaf turtle had not been seen in the wild for 65 years. The financial incentive for collecting and selling these turtles is so high that *in-situ* conservation measures are very difficult to establish. The population of this species in human care, on the other hand, has seen a considerable increase through continued breeding successes in some institutions.

A scimitar-horned oryx (*Oryx dammah*) calf was born in July. When the calf was old enough, the African Plains Team successfully reintroduced the mother and calf to the mixed species African Savanna habitat, which is not an easy feat. The scimitar-horned oryx is classified as Extinct in the Wild but zoo-bred animals are being brought back into protected areas of Tunisia, Morocco and Senegal, and a reintroduction project is taking shape in Chad.

Also in July, a male red panda (*Ailurus fulgens fulgens*) arrived from Sosto Zoo in Hungary and after quarantine was introduced to our female Jasmina. Our three-year-old male red panda had died unexpectedly earlier in the year. The introduction of Jasmina and the new male, Jinpa, was filmed by Moondance for 'The Zoo' TV Series. Dublin Zoo has been a supporter of the Red Panda Forest Guardian Programme in Nepal since 2014.

In October we received two female white-naped mangabeys (*Cercocebus lunulatus*) from Rotterdam Zoo to complete our mangabey breeding group in the African Plains; that same month a young male white-naped mangabey was transferred to Rotterdam Zoo. Also in October, a white-naped mangabey was born to Monifa, one of our resident females; she reared it very well.

White-naped mangabeys are classified as Endangered and are considered to be one of the primates most in danger of extinction. Their small remaining populations are spread between Burkina Faso, Ghana and Ivory Coast in West Africa. This species has a very patchy distribution and is now rare at all sites where it occurs. There are very few of these animals in European zoos.

Other relocations included two Dublin Zoo-bred female Amur tigers (*Panthera tigris altaica*), which were sent to Parc Zoologique de la Barben in France in June; two adult male red-capped mangabeys (*Cercocebus torquatus*) were transferred to Singapore Zoo in October; our pair of military macaws (*Ara militaris*) were sent to Parrot World in Crécy-la-Chapelle, France, in September and as these are relatively common in human care, they will no longer be kept at Dublin Zoo; in November seven-year-old female Bornean orangutan (*Pongo pygmaeus*), Sari, was transferred to Vienna Zoo; and in December three-year-old white rhino, Tadala, was transferred to Le Pal Zoo in France. This was the last animal transfer of the year and also the last one that went via the British land bridge before Brexit. All of the animals were transferred on the recommendation of international breeding programme coordinators.

Other births included two Humboldt penguin (*Spheniscus humboldti*) chicks in spring, which grew rapidly. In July an eastern bongo (*Tragelaphus eurycerus isaaci*) was born to Nanyuki; this species is classified as Critically Endangered and there are less than 100 eastern bongos left in the wild. In August a baby siamang gibbon (*Symphalangus syndactylus*) was born to mother Cahaya; our siamangs are genetically a very important pair for the European zoo population. The Chilean flamingo (*Phoenicopterus chilensis*) chicks started to hatch in late August, which was surprisingly late, and by the end of September, six chicks were being reared successfully by their parents. In November a healthy baby Goeldi's monkey (*Callimico goeldii*) was born, the first successful breeding for female Buffy, and male Nose.



Notable deaths included the forty-year-old female chimpanzee (*Pan troglodytes*) Florin, who died of age-related illness; the elderly zebra (*Equus quagga*) Kildare; and on 24 January Honey, our beloved Dublin Zoo domestic dog died at the age of 13. During her life, she made many, many friends as she wandered around Family Farm in the company of our volunteers.

Dublin Zoo continued to remain on alert for Highly Pathogenic Avian Influenza, commonly called bird flu, which may be carried by wild birds into the Zoo. In February there were outbreaks in Germany, Slovakia, Poland and Denmark. In November, avian flu was detected in England, in continental Europe, and then a case was reported in a peregrine falcon in County Limerick. Well-rehearsed biosecurity measures with strict protocols were put in place by the Dublin Zoo Team to prevent infection in our birds from coming into contact with wild birds or their droppings. Around Christmas, with more cases detected in Ireland and following guidance from the National Disease Control Centre, we moved our birds to indoor habitats. These included the penguins, cockatoos, flamingos, peafowl, domestic ducks, ostriches, hornbills and ibises.

Major veterinary work this year included a procedure in January on female Amur tiger Tundra as part of routine fertility management. Unfortunately, she suffered a capture myopathy and subsequent hypoxia (lack of oxygen to the brain). This led to some vision loss, and after much care by the Far Side Team, she was brought back to health and was reunited with male Max for brief periods.

In August, Sita and Suri, the Asiatic lions (*Panthera leo persica*) received contraceptive implants under general anaesthesia. Two male Rothschild's giraffes, Tafari and Sifa, were treated with hormone injections to prevent further breeding activity as part of the management plan for this species. In December, our 32-year-old female African spurred tortoise (*Centrochelys sulcata*) Abby underwent a CT scan at UCD after she had suffered repeated episodes of bleeding from her nose; she recovered well from the procedure. The Dublin Zoo Veterinary Team worked closely with external specialists, including from UCD's School of Veterinary Medicine, who were very helpful and supportive throughout the year.



(Top) Male chimpanzee Marlon with veterinary dentist Nora Schwitzer and the veterinary team.

(Bottom) Laura Mullen UCD veterinarian nurse, Emma Flynn, veterinarian surgeon and Frank O'Sullivan, head of vet services.

ZOO LICENCE AND THE ETHICS COMMITTEE

Animal welfare and operating to the highest ethical standards are core principles for us in Dublin Zoo.

The annual zoo licence inspection was carried out by the National Parks and Wildlife Service (NPWS) in December 2020 under the European Communities (Licensing & Inspection of Zoos) Regulations 2003. As physical meetings were not possible under Level 5 Covid-19 restrictions, the inspection took place virtually. We are pleased to report that the inspectors did not record any issues, and Dublin Zoo's licence remains valid until December 2021.

The Ethics Committee of the Zoological Society of Ireland (ZSI) is committed to meeting at least twice a year, as set out under zoo licensing legislation. This was achieved virtually in 2020. At the December meeting, the committee was joined by newly co-opted member Bernadette Earley, a research officer at Teagasc, the Agriculture and Food Development Authority. Dr Earley brings considerable knowledge and experience in the ethical review of research and of animal transportation.

The Ethics Committee approved newly created policies on the Prudent Use of Antimicrobials and on Collection Acquisition and Disposition. It also recommended the Animal Welfare Policy to the ZSI Board for approval. This is one of our most fundamental policies, as animal welfare is our mandate and forms the basis of everything we do. The Ethics Committee also reviewed a new animal welfare assessment toolkit, which will be used to carry out a systematic welfare audit of the Zoo's animal collection over the next twelve months.

The committee concluded that it was satisfied that ethical matters had been dealt with appropriately throughout 2020 and thanked the Zoo management for their assistance with the various aspects of its work.

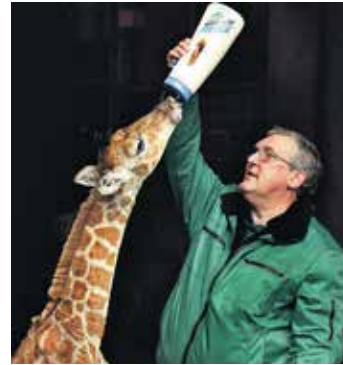


(Above) Siamang gibbon Cahaya and her infant



Operations Manager Gerry Creighton left the Zoo and has established an international elephant care consulting business. As a young teenager, Gerry helped his father, Gerry Creighton senior, around the Zoo.

He officially joined the Zoo as a keeper in 1985, working initially with the large cats and the apes, and then with the elephants. In 1997 he was appointed a team leader and was a key member of the team that introduced protected contact elephant management in 2007. In 2009 Gerry was appointed Operations Manager, Animals and Grounds. Given his experience with our elephants, he continued to lead that team along with his other duties. Gerry was a great contributor to the public profile of the Zoo and was very popular with our visitors. He is maintaining a close association with Dublin Zoo, and we wish him very well in his new endeavours.



Keeper John O'Connor retired in November after a lifelong association with Dublin Zoo. His father, John, had retired in 1995 after 48 years with the Zoo. As a child, John (junior) helped his father with the giraffes.

He became a full-time member of staff in 1970 at 14 years old, starting in the stables and working with the ponies that gave rides to young visitors. He worked with Jack Halley in horticulture and around 1980 was appointed as a keeper to work with the giraffes. During his time in the Zoo, he has seen the births of around 28 giraffes, as well as numerous zebras and camels. When the African Plains was opened, John helped the integration of the giraffes and zebras in the mixed African Savanna habitat. He had a great knowledge of the animals' personalities and was delighted to see them move to the new spacious habitat. Dublin Zoo wishes John a long and happy retirement.

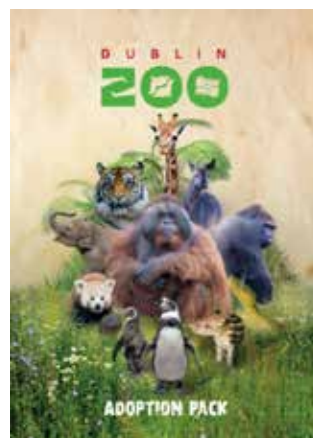
RETAIL AND VISITOR SERVICES

In the days prior to the Zoo closing on 12 March and in support thereof, the Retail and Visitor Services Team undertook a stocktake and a deep clean of the gift shops. The team was then laid off temporarily. When the Zoo reopened on 2 June, members of the team returned to look after the gates and to direct people along the one-way system. Visitors purchased their tickets online, and all availability sold out at least a week in advance because of the limited numbers that could be accommodated. Annual pass holders also had to prebook, but there was no charge.

Vending machines around the Zoo were covered in antimicrobial film and stocked up. All payments were by card and contactless. Besides the usual drinks and snacks, the vending machines also sold a hygiene set with antibacterial wipes, sanitizer and a mask. The gift shops reopened at the end of June with a one-way system and a sanitizing unit at the door. Visitors were asked to wear masks in the shop. In addition to the wide range of sustainable products we already had on offer, we introduced a new product, a children's dinner set made from bamboo decorated with the Dublin Zoo animal montage. This is part of the eco-friendly range and a percentage of the proceeds goes to Save the Orangutans International. Our sales were down in line with the reduction in overall visitation. At the beginning of September, the Zoo's closing time was changed to 4.00 pm on weekdays but the shop remained open until 4.30 pm in response to demand. This had a very positive impact on our retail performance and in the middle of the week on average, we processed a quarter of our daily sales during this half-hour.

In November and December, the Retail and Visitor Services Team played a major role in the 'Save Dublin Zoo' campaign. In the space of a few weeks, we packed and mailed over 3,200 Dublin Zoo hoodies with the campaign logo and over 29,400 animal adoption packs. The response to the adoption packs was an enormous surprise. Each adoption pack related to one of thirteen species in the Zoo including the Asian elephant, red panda, western lowland gorilla, Chilean flamingo, Bornean orangutan, southern white rhino and snow leopard. Costing €50 each, the packs contained a certificate, which could be personalised on request, an adult ticket to visit the Zoo, a fact sheet about the animal, a photo of the animal, and a Dublin Zoo key ring, pen, tote bag and car sticker.

The number of orders for the adoption packs exceeded all expectations and turned into a major logistical operation. The Zoo was closed but the Retail and Visitor Services Team returned to work to assemble and mail out the packs and to mail the hoodies.



(Left) Animal adoption pack cover

(Right) Kate Cregan wearing a Save Dublin Zoo hoodie

We were extremely fortunate and are very grateful to staff from all of the Dublin Zoo teams who became involved in the operation, setting up packing stations in their own areas. The Retail and Visitor Services Team, with the help of the Marketing Team, coordinated the work and at the height of the activity, An Post sent dedicated vans to collect the mail sacks at the end of the day. Requests for the adoption packs came from all over the world, including Britain and other European countries, Japan, Australia, United States, South America and even Wuhan in China. The entire operation was very well organised and efficient, and a tremendous collective effort.

On 4 December the gift shops reopened when the Zoo reopened. A small number of staff, together with the volunteers, completed the mailing of the adoption packs. In partnership with DigiTickets, new Dublin Zoo gift cards that could be used to purchase items online were launched.

The work of our Reception, Administration and Bookings Team deserves a special mention. With the change to online booking and ticketing, limited availability of tickets for day visitors and annual pass holders when the Zoo was open, as well as the administration of the adoption packs and general emails, their workload was immense at times, and we are very grateful to them.



CATERING

All catering was closed down when the Zoo was closed, and our core team of 20 – 25 staff was temporarily laid off. When the Zoo reopened, we reassembled a team and adapted to the new regulations. Only takeaway catering was allowed and seating areas were limited. The Meerkat Restaurant was completely out of circulation. The Picnic Bench by the lawn near Zoorassic World and Nakuru Café in the African Plains were opened for takeaway, and during busy times we also opened The Cove. Pop-up ice cream trailers were rolled out in the summer. Ice creams were only available in tubs to avoid handling cones. In order to adapt to these different conditions, a large selection of sandwiches was made available and fresh pastries were made on-site every day. A panini maker was available in the Picnic Bench on request. Hot and cold drinks and snack food were always available from the outlets, and The Cove served hot food when it was open. The same services were available in the Zoo when it reopened in December after the second lockdown.

For three months in the latter part of the year, Baxter Storey sublet the kitchen of the Meerkat Restaurant for the preparation of their Christmas hampers. The Facilities Team helped to prepare the kitchen for their use. They brought in their own staff from different sites to do food production.



(Above) An empty Zoo with limited picnic benches spaced 2 metres apart

DEVELOPMENT AND MAINTENANCE

The continued development of our habitats was also adversely impacted in 2020 by Covid-19. Early in the year, work on the snow leopard and red panda habitats was progressing well, with the superstructure in place by the end of January. The completion of the project was scheduled for June 2020, but in February all capital works and non-essential maintenance were deferred on the emergence of Covid-19. Following negotiations with the contractors, Connolly and Sons, work was suspended by mutual agreement with a view to returning when the situation allowed. Other work that was temporarily suspended included the completion of Lakeside Lodge and the accessibility toilet near the Discovery and Learning Centre. None of these projects had recommenced by the end of the year.

Four smoking shelters were erected in order for the Zoo to become a non-smoking site. Shelters are located near the entrance of the Zoo, near Haughton House, near Nakuru Café and at the far end of the African Plains. Early in the year, Dyson sponsored the installation of state-of-the-art hand-wash and dryer units in the visitor toilets at the Meerkat Restaurant and at the entrance. During the year as part of an ongoing project, the lighting in the Rhino / Hippo House and the Giraffe House was replaced with LED lighting, which reduces power consumption, increases light levels and brings us significant savings on our annual power costs.

From March 2020 onwards, only essential day-to-day maintenance took place. The Facilities Team focussed on reviewing risk assessments, and on policies and procedures to comply with the government's public health guidance on Covid-19.



In order to protect staff and avoid cross-contamination between one part of the Zoo and another, facilities for Animal Care Teams were spread into parts of the Zoo normally used by the public, including Haughton House, Family Farm, the classrooms in the Discovery and Learning Centre, the Rhino Station and the Gorilla House. Additional washing and drying machines for staff uniforms were installed in the facilities used by the Elephant, Far Side and African Plains teams. Our cleaning contractors, Ryans, split their team into two, one for the African Plains and one for the rest of the Zoo, again in order to avoid cross-contamination. Enhanced cleaning routines were introduced for all staff facilities. With staff working at home where possible, the reduced density of staff meant that it was not necessary to reorganise the administration offices. However, the Meerkat Restaurant was rearranged to accommodate staff meetings, volunteer activities, training, and retail packing under Covid-19 restrictions.

In preparation for the Zoo reopening on 2 June, the Facilities Team installed over 500 pieces of temporary signage across the site to identify paths to various habitats along the one-way trail, as well as to remind visitors about social distancing and hand hygiene. Initially, barriers were placed along the trail to control the movement of visitors but soon after the Zoo reopened, these were considered unnecessary and removed. From then on the combination of signage, the support of volunteers and the regulation of the number of visitors coming through the gate ensured the health and safety of staff and visitors. By July the system was working very well. In compliance with the latest public health guidance from the HSE, visitors were asked to wear face masks on-site where staying two metres apart from people was difficult.

We are grateful to our sustainability sponsors, SSE Airtricity, who provided us with 56 contactless hand sanitization stations and four non-contact water dispensers. These were installed throughout the Zoo. SSE Airtricity also provided us with the cost of the sanitizer.



(Above) Hand sanitizing stations and water dispensing units provided by SSE Airtricity

HORTICULTURE

At the beginning of the year, there was the usual winter work and the tidy-up following Wild Lights. From March, the Horticulture Team was temporarily laid off. The good weather in April triggered extraordinary growth. Under normal circumstances, the Horticulture Team maintains the balance in the Zoo's complex plant collection by limiting growth, managing unwanted dispersal of seeds, and supporting plants that compete for space and resources. When the team returned on reduced hours at the end of May, the considerable spring growth created challenges. The mid to long-term impact of this gap of management on the plant collection will be monitored.

The Horticulture Team prepared the Zoo for reopening in June. They cut back vegetation over the paths and checked on potentially dangerous branches, especially those in older trees. Plants were cared for, the nursery plants tended, trees were pruned and seeding control was commenced. It was too late to do any work on the hedges because legislation demands that they are left alone from the end of March until September to support bird breeding. Foliage in some of the animal habitats, including orangutans and gorillas, was cut back so that visitors could see the animals better. Plants that had been kept in the nursery over winter, such as the aquatic plants from the gorilla habitat, were replanted.

In autumn, preparations for the winter commenced, such as mixing mulch materials and collecting fallen leaves and dead grasses and protecting sensitive plants. At this time of year, it is easier to assess where tree surgeon intervention is required, as tree limbs and structure are more visible without leaves.

A full review of the trees was carried out, and tree surgeons worked on-site to prevent branches from coming down in a high wind. The Horticulture Team pruned the top of some of the South American House outdoor habitats and cleared them of excess vegetation to allow more light to filter through to the animals.

Three years ago, as an experiment, the Horticulture Team planted willow, ash, maple and other trees that we could use as browse for some of our animals. The cost of browse for our elephants, ruminants such as giraffes and okapis, and apes is huge. Our experiment with growing and harvesting is to increase our sustainability and self-reliance and to reduce costs. Board member and animal nutritionist, Andy Beer, was consulted as part of the process. In late summer and early autumn 2020, browse was harvested on-site. This requires the special technique of coppicing: we allow the tree to reach a certain height and then cut it to promote the re-growth of numerous branches rather than a tall trunk; the new branches are kept low in height. We are assessing the palatability of the browse and establishing the quantities that can be obtained from our site. It is an ongoing small-scale project to develop skills and knowledge. Currently, we can only harvest relatively small amounts from the Zoo grounds, covering about 7% of our needs. But together with a stricter review of browse requirements, we have already introduced savings in the cost of browse acquisition.



DISCOVERY AND LEARNING

2020 was a year when the Discovery and Learning Team drew on their great creativity to find ways of delivering our mission despite the lockdown, and the level of output and engagement with the public through our digital platforms was remarkable. Education bookings in 2020 were down overall by 85 percent, but this was reasonable considering the prolonged closures, the restrictions on face-to-face teaching and reduced staffing. Including online delivery, there were 5,914 formal bookings, 777 informal bookings and 6,691 self-guided groups. When compared with 2019, formal bookings were down 72 percent and informal bookings were down 80 percent. The bulk of the delivery took place from September to December 2020. Programme options for transition year students were the most popular. 694 secondary school students attended face-to-face classes in December, which was a 76 percent increase when compared with December 2019. School groups opted for self-guided visits when there was no availability of our two educators.

The beginning of the year was very busy with the BT Young Scientist and Technology Exhibition; the Zoo's stand was incredibly popular and provided a fantastic platform to connect with primary and secondary teachers. In February, the team held informal education programmes, including Dinosaur Discovery - kids only, which continued to book well. The new Dinosaur Discovery Families educational event booked out on two Sundays in February, reaching a total of 89 participants. The spring workshop with 27 learners was held during the mid-term. On 29 February, 13 participants took part in Wild Behaviours.

Also in February, 14 teenagers attended the Spring Teen Workshop to learn about life as a real-life conservationist with the Discovery and Learning Team and special guest Collie Ennis from the Irish Herpetological Society. The very popular Parent and Toddler sessions continued on each Wednesday in February, with 226 parents or guardians plus their children taking part. During Engineers Week in March, just before the first lockdown, the Discovery and Learning Team delivered the Giraffe Habitat Challenge to 328 secondary school students, which was a very successful programme.

In January 2020, the Discovery and Learning Team had been preparing for expansion, with Zoorassic World and the Discovery and Learning Centre ready to be used for a greater range of activities. The department was restructured with Aileen Tennant, the Head of Discovery and Learning, focussing on a long-term strategy for the department. A new position, Discovery and Learning Manager was created to manage programmes and staff; Niamh Potter was appointed to this position in February. Following the closure of the Zoo from 13 March onwards, the Discovery and Learning Team was considerably reduced, with several teachers temporarily laid off and the rest of the team on shorter hours. The remaining team pivoted very quickly and put a lot of effort into virtual teaching, and the total Discovery and Learning reach across all social channels from April to June was 1,403,099.

Five educational slots featuring Zoo teacher Kelly Mara were filmed for the RTÉ Home School Hub and broadcast in April.

Each segment was five to six minutes long, with bespoke worksheets created for children to work on at home. In October, another series, again with follow-up worksheets called the Afterschool Hub was filmed, with John Muldowney joining Kelly. This was broadcast in November. It raised the profile of Discovery and Learning at Dublin Zoo, and many children were in touch to share their at-home activities via letters, video, photos and email. During the Easter Holidays, Aileen Tennant and Kelly Mara worked with Marketing Team member, Killian McNally, to post a daily nature activity video for families. Subjects included spotting local biodiversity, setting up butterfly baths and bee baths, making bird feeders and helping with bird identification. The Discovery and Learning Team wrote the content for the SSE Airtricity “Eco Explorers Club”, from which a range of online activities were developed. The programme ran for ten weeks, with five themes, relating to biodiversity loss and sustainability and it went out during the lockdown in April and May on SSE Airtricity platforms, with a total reach of 5.4 million. Videos that had direct links to Dublin Zoo went out on our channels.



(Above) Kelly Mara on the RTÉ Home School Hub

In September, following a risk assessment, Discovery and Learning offered our traditional ecology and conservation programmes to transition year students. These outdoor classes were the only face-to-face programmes we could offer. Teacher hours were increased and teacher John Muldowney returned to work in September. There was a huge demand for school bookings, with both educators fully booked out until the Zoo’s closure on 21 October. Those that missed a programme slot attended the zoo on a self-guided session. After the Zoo reopened on 4 December, the team gave classes on-site again, with both teachers back working full time to meet demand.

We reverted to virtual programmes during the second lockdown. By now the team was successfully delivering online classes, and November was a very successful month for virtual learning. The Discovery and Learning Team adapted the existing outreach programme to be delivered via Zoom to classrooms throughout Ireland. Kelly Mara and John Muldowney delivered sessions while Christine O’Connor and Niamh Potter moderated the sessions. We engaged with the national library network and science festivals for Virtual Science Week from 8 to 15 November, with libraries festival organisers across the country organising the bookings for the schools in their region. A total of 1,808 primary school children engaged with the Science Week programme, and the feedback from science festival organisers, school teachers and libraries was outstanding. Due to demand, the programme extended into December, and further virtual bookings have been requested for 2021.

Between 23 and 27 November, Kelly delivered three third-level virtual Animal Care modules for Dunboyne College. This proved very successful and further bookings are requested for 2021. 55 students participated. December was another very successful month, with 993 learners engaged in virtual outreach programmes.

Our ever-popular summer camps were cancelled, but at Halloween, the team held virtual workshops, which were delivered over three days, and each was one hour long. The first sessions booked out very quickly, so additional sessions were added; 12 were delivered in total, with 274 children attending. In the past, these would have been full-day workshops, which were usually attended by children living locally. Now we had participants from all over Ireland and several from abroad, including Dubai and New York. The response was excellent, with parents commenting on the high level of engagement maintained by the Zoo educators throughout the sessions.



Discovery and Learning received many requests for special virtual presentations, and later in the year, we delivered hour-long online sessions to children as part of corporate family days. Two members of the team worked on these: Kelly Mara delivered the presentation while another member of the team acted as moderator, relayed the children's questions, answered short messages, and provided a safeguarding role for the young participants. Arising from all of this experience, the team developed engagement skills and management techniques in virtual teaching and learning. All virtual programmes other than the virtual tours for primary schools were fee-based.

Dublin Zoo and members of the BIAZA network in Ireland including Fota Wildlife Park were recipients of the BIAZA Gold Education Award for their submission 'National STEAM Collaboration, working to promote BIAZA conservation education to Junior Cycle teachers in Ireland'. A Dublin Zoo case study was included in the World Association of Zoos and Aquariums (WAZA) Conservation Education Strategy; entitled 'Providing conservation opportunities for all families', the case study highlighted the five-month programme held for families in The Wild Space. This strategy, the latest in WAZA's important collection of strategies, was made available as a tool to all WAZA member zoos worldwide. In November, the team supported the Zoo's fundraising campaign, coordinating the packing of adoption packs in the Discovery and Learning Centre.

VOLUNTEERS

Recruitment for new volunteers began in January, and this was the first year that online application forms were used. An impressive 180 applications were received and, following an open day and interviews, 33 volunteers were selected for the coming summer season. Their training was held on 22 and 29 February and 7 March. The graduation with a special elephant-themed day was planned for 21 March, but by then the Zoo had been closed. During the lockdown, the Coordinator of Volunteers, Noreen Fitzsimons, continued to work one day per week. Communication with all volunteers took place to continue their engagement with the Zoo. Maintaining contact with elderly and vulnerable volunteers was a critical aspect of the work during this time. Two table quizzes were held via Zoom to boost morale. A weekly 'Zoo Fix' email was sent out to the volunteers with updates concerning the animals in Dublin Zoo, together with interesting links to positive stories about animal conservation and the natural world. These proved hugely popular, with many volunteers saying it was the highlight of their week.

In June, our volunteers returned after health checks and induction training on Covid-19 safety protocols and visitor engagement along the one-way Outdoor Safari Trail was completed. The roster was redesigned, with teams of volunteers working together on set days to minimise contact with others and to support a safer way to work. In the autumn, when the schools returned, the roster was adjusted with a greater emphasis on the weekends. The volunteers included our new recruits who had very little on-site experience since their training in February and March. The volunteers performed a very important role in guiding our visitors past some pinch points that occasionally occurred on the one-way system.



They were also on hand to answer visitors' questions and to make the visitors' overall experience of the Zoo more enjoyable and informative. Their support was really appreciated and there was very positive feedback from families via social media posts and e-mails about the help they received from the volunteers.

In August, on behalf of the volunteers, Noreen Fitzsimons presented Leo Oosterweghel with beautiful Irish hand-crafted items at a socially distanced event to acknowledge his support for them over the 19 years of his tenure as director of Dublin Zoo.

On Sunday 27 September during National Volunteering Week, Dublin Zoo celebrated the achievements of the volunteer programme via a montage video on our social media channels. A video expressing the Zoo's appreciation from the director, the head of Discovery and Learning and the Volunteer Coordinator was delivered to all volunteers with the announcement that they were being invited to name the new red panda. The winning name 'Jinpa' came from volunteer Matt Goins; Jinpa is a Tibetan word meaning generosity.

(Above) Leo Oosterweghel with Noreen Fitzsimons

During the 'Save Dublin Zoo' campaign in November, the volunteers conducted fundraising activities, gave direct donations, bought hoodies and adoption packs, and spread the message, thus encouraging further donations. They also tirelessly and efficiently supported packing animal adoption packs in the Discovery and Learning Centre. When the Zoo reopened on 4 December, 42 of our volunteers were cleared to return to the Zoo; they were all in the low-risk category and had completed the Zoo's induction on Covid-19 safety protocols. However, only 30 of this group were available to come to the Zoo due to restrictions on inter-county travel, requirements to self-isolate and unease with increasing Covid-19 case numbers. At Christmas, 40 volunteers attended the virtual 'Christmas Cracker' event in place of the usual Dublin Zoo Christmas lunch. The Discovery and Learning staff supported in hosting the event and the director passed on his Christmas message to the team. It was a nice boost to spirits and a way of saying thank you to them all for helping us through a very difficult year.



Alf Perkins, one of our long-standing volunteers, passed away during the year at the age of 81 years old.

Alf was a volunteer from 1989 until 2019 when he left to care for his wife. He was a stalwart during the early days of Dublin Zoo's volunteer programme and attended every Sunday morning and bank holiday; the Discovery Centre was his preferred location. He had a great passion and interest in the artefacts and engaged warmly with the visitors. The Zoo Team sends our condolences to his wife Pat and family.



MARKETING AND PR

During this exceptional year, the Marketing Team worked closely with Teneo, our public relations advisors, to communicate developments as they evolved and to find creative ways to engage with our visitors remotely. The closure of Dublin Zoo in March and again in October was communicated on all platforms. During the first lockdown, the downsized Marketing Team managed extensive daily media requests and provided statements, images and videos. Journalist Conor Pope visited the Zoo in May and wrote a very supportive piece in the Irish Times. Gerry Creighton gave an upbeat interview about the closed Zoo with Ray D'Arcy on RTÉ Radio One. Press releases relating to new births in 2020 received widespread media coverage and these included the birth of the southern white rhino calf, the siamang gibbon, two Humboldt penguin chicks, and the Goeldi's monkey. A picture of the penguin chicks taken by Kate Cregan was used on the front page of the Irish Times. Work on the Dublin Zoo website continued with the launch in January of the conservation section, which features information, imagery and video content on all of the conservation projects that Dublin Zoo supports in Ireland and abroad. Social media platforms grew considerably to 328,248 fans on Facebook, 95,000 on Instagram and 39,900 on Twitter. Publication of Zoo Matters was suspended.

Connecting with our young visitors and their families during the lockdowns was a major activity this year, and Marketing Team members Kate Cregan and Killian McNally are to be commended for their dedication, creativity and enthusiasm in finding plenty of ways to engage through social media.

On 19 March, a week after the first lockdown, the Marketing Team launched downloadable activity books for homeschooling; each activity book was themed around a different animal at Dublin Zoo, conservation and 'The Zoo' TV Series with crosswords, word jumbles, colouring pages and other activities. The workbooks were downloaded 37,865 times. Animal updates with videos and images were released on social media each weekday from 18 – 31 March. These were viewed more than 600,000 times. Dublin Zoo's webcams also became very popular, with an average increase of approximately 10,000 views per month increasing to over 100,000 views per month over the period the Zoo was closed. They also attracted extraordinary media interest.

In autumn the Marketing Team released five 'Ask the Keeper' videos on social media over a five-week period, with question and answer sessions. These elicited a great response and reached over 225,700 people. The Marketing Team worked closely with the Discovery and Learning Team to broadcast educational material from Dublin Zoo. These included two series of the RTÉ Home School Hub each with five slots, one starting in April, the other being broadcast in November.

In preparation for the reopening of the Zoo on 2 June, Sinead O'Regan, who was acting events manager and had worked on Wild Lights, managed the ticketing and complex customer service issues associated with that task. Visitor surveys were conducted in August and September, and the results were very positive and encouraging.

The tenth series of 'The Zoo' by Moondance Productions and sponsored by SSE Airtricity commenced on RTÉ on 4 October. A highlight of this series was the visit of keeper Brendan Walsh to Tunisia to see the success of reintroduction programmes for the scimitar-horned oryx, which we have been supporting since 2007. The Wolves in the Woods habitat was also a major feature. There was extensive coverage across all media, including interviews with Brendan. There were eight episodes, which averaged 247,000 viewers per episode and a market share of 18.4%, an increase on the previous series. Earlier in the year, during the first lockdown, the 2019 season of 'The Zoo' TV Series was broadcast every Friday at 8.30 pm on RTÉ One. The Marketing Team created bonus activity workbooks and Facebook quizzes to coincide with each episode to drive engagement and boost viewing figures.

Sustainability partnership

During this challenging year our sustainability partner, SSE Airtricity, was exceptionally supportive in numerous ways, from providing contactless hand sanitizer stations and water dispensing units to being the first business to make a donation to our fundraising campaign. They sponsored a ten-week digital project entitled the Eco Explorers Club in order to reach out to parents and children directly, and ensure that they had access to tools and resources that could help them to continue to learn about sustainability and its relevance to the world around us. The programme, which included a lot of input from the Dublin Zoo Discovery and Learning Team, featured animated educational videos, imagination yoga, virtual tours of Dublin Zoo, Facebook live events with Reuben the Entertainer and Draw with Don Conroy. It was released on the SSE Airtricity website and was extremely popular.

Wild Lights

Wild Lights 2019-20 finished on 12 January. The total number of tickets sold for this season was 257,637, which is an extraordinary result. The design process for Wild Lights 2020-21 commenced in February and was suspended in June. When it was announced in September that Wild Lights could not take place in 2020, there were many expressions of sadness and empathy across all media. Planning took place to create a Covid-19-secure Santa experience at Dublin Zoo for the winter months but in the circumstances, this event was also cancelled. Instead, a Christmas lights scheme designed by Damien Byrne was installed around the main entrance, Haughton House and selected trees to create a festive atmosphere when the Zoo was open during December.

Events

Following the announcement of the lockdown in March, all forthcoming events had to be cancelled including, sadly, several weddings. The BIAZA conference planned for June 2020 was cancelled and all arrangements, hotels, entertainment, guest speakers, were rescheduled for June 2021; (these have since been rescheduled to 2022).

‘Save Dublin Zoo’ campaign

With the economics of running the Zoo becoming ever more difficult as the year went on, it became obvious that exceptional measures were required. Plans for the ‘Save Dublin Zoo’ fundraising campaign commenced in October, and on 18 November the appeal to the public to help raise funds towards the heavy costs of animal care was launched. Chester Zoo had a successful fundraising campaign and was very generous with sharing ideas. We are grateful to Jamie Christon, CEO of Chester Zoo, and his colleagues Caroline Sanger-Davies and Julie Platt, for their collegial support. Partnerships were established with the fundraising platform JustGiving to host donations, and LikeCharity, who set up a text-to-donate system. The Dublin Zoo website was fully rebranded to support the campaign and an online shop on dublinozoo.ie was set up to sell ‘Save Dublin Zoo’ hoodies and Animal Adoption Packs. The campaign was supported by a full suite of print and digital assets by Wilson Creative, and a video by Moondance with zookeepers appealing to the public to donate; this video had over one million views.

The media response and the outpouring of support from the Irish public were phenomenal. The ‘Save Dublin Zoo’ campaign took off very quickly. It reached an audience of over 35 million people on social media, with the dedicated hashtag #SaveDublinZoo trending number one on Twitter in Ireland. The campaign raised almost €100,000 within an hour of the announcement. SSE Airtricity was the first business to donate with a very generous €20,000. The total rapidly increased to over €1,000,000 in the first 12 hours and then over €2,000,000 by the end of day two. The campaign was covered by all major print and online news publications (over 300 features across online, print, radio and TV), and on all high profile national TV and radio news broadcasters, and featured in many international publications including the New York Times. Donations by year end were €2,877,616. We are indebted to all the support given to us throughout this campaign and to the Irish public for their great generosity.



(Above) Save Dublin Zoo campaign graphics

CONSERVATION AND RESEARCH

Dublin Zoo's contribution to *in-situ* conservation in 2020 was much reduced because of the Covid-19 pandemic and resulting closures of the Zoo for 4.5 months in total. However, conservation support will return to normal levels once the Zoo is financially secure.

In 2020, 'The Zoo' TV Series aired the visit of keeper Brendan Walsh to Tunisia where he observed the scimitar-horned oryx reintroduction project taking place. Dublin Zoo has been supporting this reintroduction project since 2007. Scimitar-horned oryx were once widespread across northern Africa but due to overhunting, habitat loss and competition with domestic livestock, the scimitar-horned oryx gradually disappeared. This species is believed to have gone extinct in the wild around 1990. Fortunately, scimitar-horned oryx were brought into zoos in the 1960s and now there is a global zoo breeding programme for this species. The reintroduction project in Tunisia began in 1985 with oryx from European zoos and was coordinated by Marwell Wildlife in Britain. Since then the Tunisian population has been augmented several times with oryx from European and North American zoos, and the population now numbers around 300 individuals. A vital aspect of the reintroductions is the monitoring of the population and its impact on the wider ecosystem. Brendan Walsh visited a number of the reintroduction sites and observed first-hand these vital monitoring tasks.

In October 2019, Dublin Zoo provided funding to the Lowveld Rhino Trust (via Save the Rhino) for their conservation work in 2020. The Lowveld region in Zimbabwe is a key area for white and black rhinos.

The Lowveld Rhino Trust monitors rhino numbers, facilitates anti-poaching efforts and engages with local communities. Because of their work, rhino poaching losses have decreased significantly since mid-2019 and enabled the rhino populations to grow in this region. Tracking teams discovered 17 new black rhino calves and two white rhino calves in 2020. At the start of 2020, the Lowveld Rhino Trust team continued to engage with local communities to support rhino conservation. Rhino and conservation-based lessons were provided to 3,809 pupils and 97 teachers around the Lowveld conservancies in Zimbabwe before outreach work had to stop because of the global pandemic. Dublin Zoo has been providing support to the Lowveld Rhino Trust via Save the Rhino since 2009.

International conservation projects supported by Dublin Zoo, 2020

- Bongo Surveillance Trust – Kenya (bongo).
- Conservation Planning Specialist Group (part of the International Union for Conservation of Nature).
- WAPCA - West African Primate Conservation Action - Ghana (white-naped mangabey).
- Okapi Conservation Project – Democratic Republic of Congo (okapi).
- Zoo and Aquarium Association Australasia – Australian bushfires 2019-20, animal rescue and rehabilitation.

Research in 2020

Animal research by the Zoo Team

- Keeper, Louise McDermott collected data on the breeding ecology of the Chilean flamingos.

- The Rothamsted moth trap ran until March. Unfortunately, because of the Covid-19 pandemic, it had to be turned off as the operators were not on-site regularly.

University-led research

- How does the relationship between an okapi calf and its mother change over the first five months of its life? (MSc) – Galway-Mayo Institute of Technology.

Multi-zoo research

- The impact of diet and the gut microbiome on the risk of cardiometabolic diseases in western lowland gorillas – Czech Academy of Science and endorsed by EAZA Great Ape TAG.
- Assessing vitamin D levels in zoo chimpanzees – Ape Heart Project, Twycross Zoo and endorsed by the EAZA Great Ape TAG and BIAZA Research Committee.
- Red panda mucoid faeces study – Wildlife Reserves Singapore and endorsed by Red Panda EEP.
- Amdoparvovirus infection in red pandas held in European zoos - Zoo Ljubljana and endorsed by the Red Panda EEP.
- Elephant calf growth rates in zoos – Zoological Society of London.
- Lateral bias in trunk movement of zoo Asian elephants (BSc) – University of Chester.
- Amphibian species role in modern zoos (MSc) – University of Lisbon and endorsed by the EAZA and BIAZA Amphibian TAGs.

Other

- Provided funding for the Trinity College Botany-Zoology Postgraduate Symposium 2020.

Publications supported by Dublin Zoo

(Dublin Zoo staff highlighted in bold font)

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- **Schwitzer, C.** (2020) Editorial. *Lemur News* 22, 1.
- The head of Discovery and Learning and Zoo teacher delivered a workshop to the Dublin Branch of the Irish Science Teachers Association (ISTA) on 30 January in Blackrock College. The workshop focused on Climate Change Education.

February

- CREW (Creative, Relevant, Educational, Workshops) training took place from 13 – 15 February in the Discovery and Learning Theatre for the Retail and Visitor Services Team, the Discovery and Learning teachers and the volunteers. This training was designed specifically for Dublin Zoo visitor engagement. Outcomes from the training were a visitor engagement map for retail staff, teachers and volunteers.
- The curator and three keepers attended the Great Ape welfare group workshop in Chester Zoo.
- The curator and relevant members of the Animal Care Team attended a fish quality workshop at the Zoo organised by Dr. Orla Cahill from Technological University of Dublin.

Training and conferences

January

- Most of the Dublin Zoo staff and volunteers participated in autism awareness training with AsIAm, Ireland's National Autism Charity, across a number of days in January.
- The curator and the registrar/research and conservation coordinator attended the Zoos.ie Animal Welfare Workshop in Tayto Park in January.

March

- The keeper/ EEP Coordinator for Goeldi's monkeys attended the Callitrichid TAG midyear meeting in Artis Zoo in March.
- The registrar/research and conservation coordinator attended the Bird TAGs mid-year meeting in Arnhem in March.
- The head of Discovery and Learning and a Zoo teacher delivered a workshop on behalf of BIAZA on the biodiversity loss emergency to 30 teachers as part of the national teacher training programme, STEAM.

May

- The curator attended the virtual WAZA webinar: reopening strategies.

June

- The keeper/ EEP Coordinator for Goeldi's monkeys attended an online Regional Collection Plan meeting for the Callitrichid TAG.

September

- The director attended a virtual BIAZA Finance and Resource Committee meeting and chaired a meeting of the BIAZA Chairs of Committees. The main discussion topic among all zoo associations was the recovery of the sector from the Covid-19 crisis.
- The director, the curator, the registrar/research and conservation coordinator, and the keeper/ EEP coordinator for Goeldi's monkeys attended the online EAZA Annual Conference, 29 September to 2 October.
- The curator attended the virtual webinar about the fundamentals of Animal Welfare (EAZA welfare working group).
- The director attended the virtual AGM of the Association Européenne pour l'Etude et la Conservation des Lémuriens (AEECL), a consortium of European zoos that has joined forces to carry out lemur conservation and research projects in Madagascar, of which he is the vice-president.
- The director chaired the virtual BIAZA AGM and a meeting of BIAZA Council and attended a meeting of the Finance and Resource Committee.

- The director attended the virtual AGM of EAZA as the institutional representative of Dublin Zoo, as well as an EAZA Conservation Committee meeting.

October

- The director attended the virtual AGM of WAZA as the institutional representative of Dublin Zoo.
- 12 staff attended manual handling training.
- The head of Discovery and Learning and Discovery and Learning Manager attended the virtual International Zoo Educators Conference from 9 – 11 October and delivered a virtual talk 'Dublin Zoo delivering Conservation Education during the Global Pandemic' to an audience of 60-65 participants from around Europe, Middle East, Asia and the United States.

November

- Staff attended GDPR training delivered in house.
- First Aid refresher training was provided to five staff members at St John's training hall.
- Three staff attended a manual handling course.
- One staff member attended Covid-19 online training.
- The director in his role as Chair of BIAZA Council chaired meetings of Council and of the Chairs of Committee on 12 and 13 November, respectively.
- The curator attended virtual presentations: Reverse the Red Live Webinar (IUCN) and Quality of Life Assessments (EAZA).

- The head of Discovery and Learning delivered a virtual talk 'Dublin Zoo delivering Conservation Education during the Global Pandemic' for International Zoo Educators Day on 12th November and also to the BIAZA Educators Conference on 18th November.
 - The coordinator of volunteers attended three virtual meetings of the BIAZA Volunteer Managers Working Group (VMWG) across November and December 2020, and January 2021 to consider the various challenges facing the volunteer programmes in Irish and British zoos during the pandemic.
- December**
- One member of staff attended health and safety training.
 - Several staff attended a refresher first aid course.
 - 42 volunteers were trained in Covid-19 health and safety protocols.
 - The curator attended the virtual presentation, Animal Welfare in Relation to Modern Zoo Practices (EAZA).



CENSUS OF ANIMALS IN DUBLIN ZOO DURING 2020

Summary of Census of Animals in Dublin Zoo on 31st December 2020

Taxon	Total Species	Total Specimens
Mammals	36	187
Birds	11	179
Reptiles	19	43
Total vertebrates	66	409
Invertebrates	4	4 colonies

Summary of Births and Hatchings of Animals in Dublin Zoo during 2020

Taxon	Total Species	Total Specimens
Mammals	9	15
Birds	6	53
Reptiles	1	1
Total vertebrates	16	69

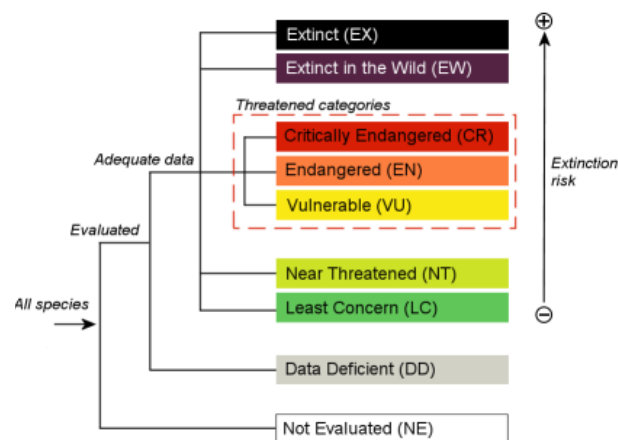
Summary of species management programmes which Dublin Zoo was part of during 2020

Number of new style EEPs (EAZA Ex situ Programme)	17
Number of old style EEPs (European Endangered species Programmes)	21
Number of European studbooks (ESB)	4
Number of species not part of a managed programme	32




Note – the domestic breeds in Family Farm are not included in these figures.

Summary of Animal Taxa on the IUCN Red List of Threatened Species in Dublin Zoo during 2020

IUCN status	Number of species/ subspecies
Extinct in the Wild – EW	1
Critically Endangered – CR	10
Endangered – EN	15
Vulnerable – VU	10
Near Threatened – NT	5
Least Concern – LC	22
Not Evaluated – NE	11




During 2020 Dublin Zoo held 74 species/subspecies of which 36 (49%) were globally threatened, i.e. falling into the IUCN Red List categories from Vulnerable to Extinct in the Wild. A further five species/subspecies fell into the Near Threatened category. The remaining species/subspecies were either of Least Concern (#22 – 30%) or had not been evaluated yet (#11 – 15%).

Male	Female	Unknown
		

Key to IUCN Status: See page 39.

This census does not include animals which have been sent on deposit to other collections, nor does it include wild animals living within the zoo e.g. many native bird species.

Key to Following Census Tables

	Part of an EEP (EAZA Ex situ Programme/ European Endangered species Programme)
ESB	Recorded in a European studbook
CITES	(Convention on International Trade in Endangered Species of Wild Fauna and Flora) CITES listing determined by the EU Wildlife Trade Regulations
Appendix /Annex	E.g. I/A = Appendix I and Annex A

Column 1: The number of animals in the collection at 1st January 2020.

Column 2: The number of animals received in 2020 through donation, loan or exchange.

Column 3: The number of animals born or hatched during 2020.















Column 4: The number of animals dying within 30 days of birth or hatching, in 2020.


















Column 5: The number of animals dying having survived more than 30 days, in 2020.



Column 6: The number of animals leaving the collection through donation, loan, exchange etc. during 2020.






Column 7: The number of animals in the collection at 31st December 2020.

The first figure indicates the male numbers; the second female numbers and the third unsexed numbers e.g. 1.2.4 reads 1 male, 2 females and 4 unsexed specimens.

	CITES	IUCN Status	SPECIES		Total at 01.01.20	Arrivals	Births	Dead within 30 Days	Dead	Departed	Total at 31.12.20
			VERTEBRATES	VERTEBRATA							
			CLASS: MAMMALS	MAMMALIA							
			PRIMATES	PRIMATES							
	I/A	EN	Ring-tailed lemur	<i>Lemur catta</i>	5. 2. 0				0. 1. 0		5. 1. 0
	I/A	CR	Red ruffed lemur	<i>Varecia rubra</i>	5. 5. 0		2. 0. 0			4. 0. 0	3. 5. 0
	I/A	VU	Goeldi's monkey	<i>Callimico goeldii</i>	1. 1. 0		0. 1. 1	0. 1. 0			1. 1. 1
	I/A	EN	Golden lion tamarin	<i>Leontopithecus rosalia</i>	1. 1. 0						1. 1. 0
	II/B	LC	Bolivian squirrel monkey	<i>Saimiri boliviensis boliviensis</i>	4. 0. 0						4. 0. 0
	II/B	LC	White-faced saki	<i>Pithecia pithecia</i>	3. 1. 0						3. 1. 0
	II/B	EN	White-naped mangabey	<i>Cercocebus lunulatus</i>	2. 3. 0	0. 2. 0	1. 1. 0	0. 1. 0		1. 0. 0	2. 5. 0
	II/B	EN	Red-capped mangabey	<i>Cercocebus torquatus</i>	4. 0. 0					2. 0. 0	2. 0. 0
	II/B	CR	Sulawesi crested macaque	<i>Macaca nigra</i>	14. 10. 2		0. 2. 0		0. 2. 0		14. 10. 2
	I/A	EN	Siamang	<i>Symphalangus syndactylus</i>	1. 1. 0		1. 0. 0				2. 1. 0
	I/A	CR	Western lowland gorilla	<i>Gorilla gorilla gorilla</i>	2. 4. 0						2. 4. 0
	I/A	EN	Chimpanzee	<i>Pan troglodytes</i>	2. 1. 0				0. 1. 0		2. 0. 0
	I/A	CR	Western chimpanzee	<i>Pan troglodytes verus</i>	1. 3. 0						1. 3. 0
	I/A	CR	Bornean orangutan	<i>Pongo pygmaeus pygmaeus</i>	1. 4. 0					0. 1. 0	1. 3. 0
			XENARTHANS	XENARTHRA							
ESB	NL	LC	Linne's two-toed sloth	<i>Choloepus didactylus</i>	1. 1. 0						1. 1. 0

	CITES	IUCN Status	SPECIES		Total at 01.01.20	Arrivals	Births	Dead within 30 Days	Dead	Departed	Total at 31.12.20
			CARNIVORES	CARNIVORA							
	II/A	LC	Grey wolf	<i>Canis lupus</i>	6. 1. 0						6. 1. 0
	NL	EN	Painted dogs	<i>Lycaon pictus</i>	3. 3. 0				1. 1. 0		2. 2. 0
	I/A	EN	Red panda	<i>Ailurus fulgens fulgens</i>	1. 1. 0	1. 0. 0			1. 0. 0		1. 1. 0
	NL	LC	Slender-tailed meerkat	<i>Suricata suricatta</i>	7. 5. 0				0. 2. 0		7. 3. 0
	I/A	EN	Asiatic lion	<i>Panthera leo persica</i>	1. 3. 0						1. 3. 0
	I/A	EN	Amur tiger	<i>Panthera tigris altaica</i>	1. 4. 0					0. 2. 0	1. 2. 0
	I/A	VU	Snow leopard	<i>Panthera uncia</i>	1. 1. 0						1. 1. 0
	NL	LC	California sealion	<i>Zalophus californianus</i>	2. 5. 0		2. 0. 1		1. 0. 1	1. 2. 0	2. 3. 0
			ELEPHANTS	PROBOSCIDEA							
	I/A	EN	Asiatic elephant	<i>Elephas maximus</i>	4. 7. 0					2. 0. 0	2. 7. 0
			ODD-TOED UNGULATES	PERISSODACTYLA							
	NL	NT	Common/Grant's zebra	<i>Equus quagga boehmi</i>	2. 5. 0				0. 1. 0		2. 4. 0
	II/B	VU	South American tapir	<i>Tapirus terrestris</i>	1. 2. 0						1. 2. 0
	I/A	NT	Southern white rhinoceros	<i>Ceratotherium simum simum</i>	2. 4. 0		1. 0. 0			1. 0. 0	2. 4. 0
			EVEN-TOED MAMMALS	CETARTIODACTYLA							
	NL	LC	Red river hog	<i>Potamochoerus porcus</i>	4. 1. 0				0. 1. 0		4. 0. 0
ESB	II/B	VU	Hippopotamus	<i>Hippopotamus amphibius</i>	0. 1. 0						0. 1. 0
	II/B	VU	Giraffe	<i>Giraffa camelopardalis</i>	2. 1. 0						2. 1. 0
	II/B	NT	Baringo/Rothschild's giraffe	<i>Giraffa camelopardalis rothschildi</i>	5. 3. 0				1. 0. 0		4. 3. 0
	NL	EN	Okapi	<i>Okapia johnstoni</i>	1. 2. 0						1. 2. 0
	III/C	LC	Blackbuck	<i>Antilope cervicapra</i>	0. 3. 0						0. 3. 0
	NL	CR	Eastern bongo	<i>Tragelaphus eurycerus isaaci</i>	1. 2. 0		1. 0. 0				2. 2. 0
	I/A	EW	Scimitar-horned oryx	<i>Oryx dammah</i>	5. 6. 0		1. 0. 0	1. 0. 0			5. 6. 0

CITES	IUCN Status	SPECIES		Total at 01.01.20	Arrivals	Births	Dead within 30 Days	Dead	Departed	Total at 31.12.20
		DOMESTIC								
		Domestic Rabbit	<i>Oryctolagus cuniculus domestic</i>	2. 1. 0				2. 1. 0		0. 0. 0
		Tamworth pig	<i>Sus scrofa scrofa tamworth</i>	6. 9. 0					5. 9. 0	1. 0. 0
		Friesian cow	<i>Bos taurus taurus friesian</i>	0. 1. 0						0. 1. 0
		Kerry cow	<i>Bos taurus taurus kerry</i>	0. 1. 0						0. 1. 0
		Small East African goat	<i>Capra hircus domestic small_east_african</i>	0. 4. 0						0. 4. 0
		Cheviot sheep	<i>Ovis aries cheviot</i>	0. 1. 0					0. 1. 0	0. 0. 0
		Lanark sheep	<i>Ovis aries lanark</i>	0. 1. 0					0. 1. 0	0. 0. 0
		CLASS: BIRDS	AVES							
		OSTRICHES	STRUTHIONIFORMES							
NL	LC	Ostrich	<i>Struthio camelus</i>	1. 4. 0				0. 2. 0		1. 2. 0
		PENGUINS	SPHENISCIFORMES							
	I/A	VU	Humboldt penguin	<i>Spheniscus humboldti</i>	8. 6. 0	0. 0. 2				8. 6. 2
		HERONS/STORKS	CICONIIFORMES							
/A	LC	Little egret	<i>Egretta garzetta</i>	1. 0. 0						1. 0. 0
	I/A	EN	Waldrapp ibis	<i>Geronticus eremita</i>	11. 11. 0	0. 0. 6	0. 0. 6			11. 11. 0
		FLAMINGOS	PHOENICOPTERIFORMES							
II/B	NT	Chilean flamingo	<i>Phoenicopterus chilensis</i>	38. 34. 29		0. 0. 8	0. 0. 2	0. 1. 0		38. 33. 35
		GALLINACEOUS BIRDS	GALLIFORMES							
/C	LC	Common peafowl	<i>Pavo cristatus</i>	4. 4. 0		0. 0. 8			1. 0. 8	3. 4. 0
NL	NT	Crested wood partridge	<i>Rollulus rouloul</i>	2. 0. 0						2. 0. 0

	CITES	IUCN Status	SPECIES		Total at 01.01.20	Arrivals	Births	Dead within 30 Days	Dead	Departed	Total at 31.12.20
			DUCKS/GEESE/SWANS	ANSERIFORMES							
	NL	LC	White-cheeked pintail	<i>Anas bahamensis</i>	2. 2. 3		0. 0. 22	0. 0. 20			2. 2. 5
			PARROTS	PSITTACIFORMES							
ESB	I/A	VU	Mexican military macaw	<i>Ara militaris mexicana</i>	1. 1. 0					1. 1. 0	0. 0. 0
	I/A	CR	Citron-crested cockatoo	<i>Cacatua sulphurea citrinocristata</i>	2. 3. 0						2. 3. 0
			HORNBILLS ETC.	CORACIIFORMES							
	NL	VU	Abyssinian ground hornbill	<i>Bucorvus abyssinicus</i>	1. 1. 0						1. 1. 0
			DOMESTIC FOWL								
			Australorp chicken	<i>Gallus gallus domestic australorp</i>	1. 1. 0				1. 1. 0		0. 0. 0
			Brahma bantem	<i>Gallus gallus domestic brahma</i>	0. 1. 0				0. 1. 0		0. 0. 0
			Indian runner duck	<i>Anas platyrhynchos domestic</i>	1. 1. 0		0. 0. 7		0. 0. 3		1. 1. 4
			CLASS: REPTILES	REPTILIA							
			CHELONES	TESTUDINES							
	I/A	CR	Annam pond turtle	<i>Mauremys annamensis</i>	2. 2. 0		0. 0. 1				2. 2. 1
	III/C	EN	Chinese stripe-necked turtle	<i>Mauremys sinensis</i>	1. 0. 0						1. 0. 0
	NL	NE	Central America wood turtle	<i>Rhinoclemmys pulcherrima manni</i>	0. 2. 0						0. 2. 0
	II/B	NE	Red-footed tortoise	<i>Chelonoidis carbonaria</i>	1. 3. 0						1. 3. 0
	I/A	VU	Indian star tortoise	<i>Geochelone elegans</i>	1. 2. 4				1. 0. 0		0. 2. 4
	II/B	EN	African spurred tortoise	<i>Centrochelys sulcata</i>	1. 1. 0						1. 1. 0

	CITES	IUCN Status	SPECIES		Total at 01.01.20	Arrivals	Births	Dead within 30 Days	Dead	Departed	Total at 31.12.20
			CROCODILES	CROCODILIA							
	NL	NE	West African crocodile	<i>Crocodylus suchus</i>	1. 1. 0						1. 1. 0
			LIZARDS	SAURIA							
	NL	NE	Green crested lizard	<i>Bronchocela cristatella</i>	6. 0. 0				1. 0. 0		5. 0. 0
	II/B	LC	Panther chameleon	<i>Furcifer pardalis</i>	1. 0. 0						1. 0. 0
ESB	I/A	CR	Turquoise dwarf gecko	<i>Lygodactylus williamsi</i>	1. 0. 0						1. 0. 0
	NL	LC	Leopard gecko	<i>Eublepharis macularius</i>	0. 1. 0						0. 1. 0
	II/B	LC	Mangrove monitor	<i>Varanus indicus</i>	0. 1. 0						0. 1. 0
			SNAKES	SERPENTES							
	II/B	LC	Green tree python	<i>Morelia viridis</i>	2. 1. 0						2. 1. 0
	II/B	VU	Burmese python	<i>Python bivittatus</i>	2. 0. 0						2. 0. 0
	II/B	LC	Royal python	<i>Python regius</i>	0. 0. 2						0. 0. 2
	/D	NE	King ratsnake	<i>Elaphe carinata</i>	1. 1. 0						1. 1. 0
	NL	LC	Cornsnake	<i>Pantherophis guttatus</i>	1. 1. 0				0. 1. 0		1. 0. 0
	NL	LC	Viperine snake	<i>Natrix maura</i>	0. 0. 1						0. 0. 1
	NL	LC	Common gartersnake	<i>Thamnophis sirtalis</i>	1. 0. 0						1. 0. 0

CITES	IUCN Status	SPECIES		Total at 01.01.20	Arrivals	Births	Dead within 30 Days	Dead	Departed	Total at 31.12.20
		INVERTEBRATES	INVERTEBRATA							
		CLASS: ARACHNIDS	ARACHNIDA							
		SPIDERS	ARANEAE							
NL	NE	Chilean rose tarantula	<i>Grammostola rosea</i>	0. 1. 0					0. 1. 0	0. 0. 0
NL	NE	Dark earth tiger tarantula	<i>Chilobrachys sp Kaeng Kraken</i>	0. 0. 1					0. 0. 1	0. 0. 0
II/B	LC	Indian ornamental tarantula	<i>Poecilotheria regalis</i>	0. 0. 1				0. 0. 1		0. 0. 0
NL	NE	Brazilian blue tarantula	<i>Pterinopelma sazimai</i>	0. 0. 1					0. 0. 1	0. 0. 0
NL	NE	Tanzanian chestnut baboon tarantula	<i>Heterothele villosella</i>	0. 0. 1				0. 0. 1		0. 0. 0
		CLASS: INSECTS	INSECTA							
		STICK INSECTS	PHASMATOPTERA							
NL	NE	Indian green stick insects	<i>Carausius morosus</i>	1 colony						1 colony
NL	LC	Macleays spectre	<i>Extatosoma tiaratum</i>	1 colony						1 colony
NL	CR	Black beauty stick insect	<i>Peruphasma schultei</i>	1 colony						1 colony
NL	NE	Zompro's/Thai stick insect	<i>Parapachymorpha zomproi</i>	1 colony						1 colony

FOTA WILDLIFE PARK : DIRECTOR'S REPORT

The year 2020 commenced very well, with the highest visitor attendance for the month of January since the Wildlife Park opened. However, when the Covid-19 virus came to our shores in March 2020, it had a dramatic effect on every aspect of Irish life, causing physical and mental strain and loss of life. It forced changes to the fabric of our society and altered how we work and live our lives in a global pandemic. Fota Wildlife Park was not immune to the effects of Covid-19 and was closed to the public from the 20th of March 2020 until it reopened on the 20th of May as can be seen from the graph below. In 2019, during this same period, the Wildlife Park experienced the highest visitation levels since the park opened in 1983 with almost 8,000 people visiting the park on the 22nd April 2019, Easter Monday bank holiday.



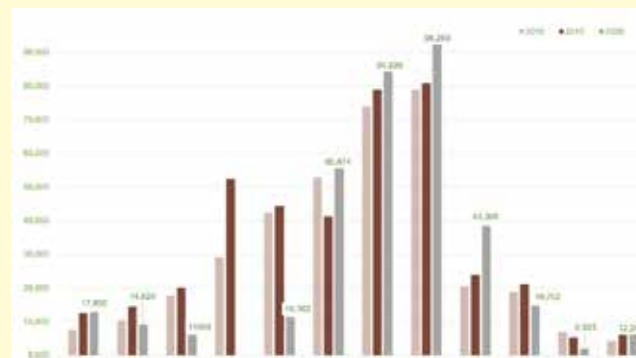
The unique character of Fota Wildlife Park and the zoo sector that includes a moral and statutory responsibility to maintain the care and welfare for thousands of animals including many endangered species meant that as a business Fota Wildlife Park could not just simply switch off the lights, close the gates and work from home. It is simply not possible to furlough a giraffe, a rhino or even a lemur.

(Above) Covid-19 effect on daily visitor numbers 2020 compared to 2019

Therefore, the Wildlife Park, when closed to the public due to pandemic restrictions, had considerable ongoing running costs associated with the care and welfare of the 130 species of animals with a total of 1,350 specimens, but also the maintenance of animal enclosures, the parklands and its buildings that include wage costs, heat and lighting and the provision of food.

Effect of the 2020 Covid-19 Pandemic on Visitor Numbers and Income

Even when the park reopened, there were considerable Covid-19 restrictions and impediments in place to increasing visitor numbers including a 5km limit, a county boundary limit, and a limitation on the number of visitors allowed within the park at any one time. As visitor-related income accounts for 95% of the Wildlife Park's funding, the Covid-19 lockdown and closure of the Wildlife Park resulted in almost zero income at the normally high visitor period during Easter. Despite reopening on the 20th of May, the long-term visitor capacity restrictions also resulted in a reduction in the number of visitors to the Wildlife Park and thus a further decrease in park income.



(Above) Monthly attendances 2018 to 2020 in months Jan to Dec

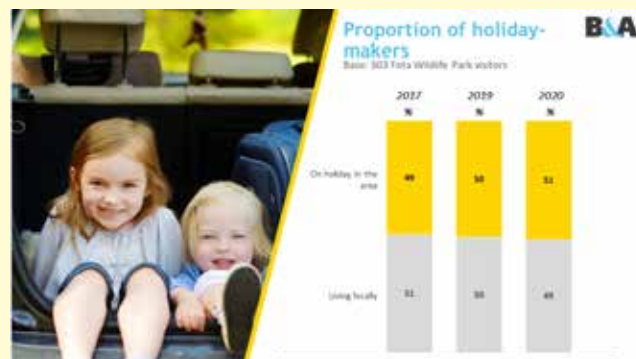
The Wildlife Park opened an hour earlier and an hour later during the months of July and August to increase the number of visitors on-site during a day without going above the restricted visitor numbers at any one time to prevent overcrowding. There were significant changes in work practices, income, and expenditure, particularly in the Education department where the number of students attending our educational courses dropped by 91% due to the pandemic restrictions, with most of the educational staff redeployed to customer support and crowd control.

However, during the months of June and September Fota had the highest visitation for these months since the park opened in 1983, and July and August also had above-average visitor numbers for these months.

The total number of visitors to Fota Wildlife Park for the year 2020 was 384,901, compared to 462,047 visitors for the year 2019. The 2020 visitor numbers were down 77,146 or 16.7% on 2019 levels. In 2020 the total visitor numbers for each of the months June, July, August and September were higher than in 2018 and 2019, with both the months of June and September setting visitor records for their respective months since the park opened in 1983.

The souvenir shop was only open for 7 months of 2020 and during most of the time operated with restricted numbers due to Covid-19 restrictions. Overall visitor income for the year 2020 was €4,728,044 compared to €5,565,870 in 2019, which is 15% or €837,826 down year on year.

The number of foreign tourists during the months of July and August in 2019 constituted 16% of the total visitors to the Wildlife Park, but in 2020 this fell to 5% due to the Covid pandemic and the hesitancy of people to travel by air and sea. However, this was more than compensated by staycation visitors as can be seen from the proportion of holidaymakers staying in the area and visiting Fota in the Behaviour & Attitudes survey conducted in the Wildlife Park during the summer of 2020. More than half of these visitors who were 'holidaying in the area' stayed in hotel accommodation, and this was of great benefit to the hotels in Cork and their survival through the summer of Covid 2020.



(Top) Where Fota Wildlife Park visitors reside

(Bottom) Proportion of holiday makers visiting Fota Wildlife Park

In 2019, Fota Wildlife Park's education department welcomed more than 18,600 students through its formal education programmes. This marked an increase of 17% in attendance figures when compared to the 2018 season. Notable increases were associated with a greater level of demand for both the secondary practical field ecology module and the recently devised Junior Certificate biodiversity module. However, in 2020 there was a 91% decrease in students through the education programmes due to Covid-19 restrictions.

Despite these challenging times, Fota Wildlife Park recorded a surplus for the year. This surplus was partly achieved through cost-cutting measures and payroll reduction which was assisted by Government Support for employees through the TWSS and EWSS schemes. Furthermore, we are thankful to the NPWS and the Government for their financial contribution at year-end of €550,000. This direct funding ensured that Fota could maintain its animal operations and conservation projects for the early part of 2021 until it was safe to reopen.

Animal Husbandry

Despite the Covid-19 pandemic restrictions, the animal and park operations departments continued to operate as normal in a pre-Covid pandemic situation. Animal transfers in and out of the Wildlife Park continued at a higher level due to the pending Brexit and the possible addition of customs restrictions that would limit or halt zoo animal transfers.

In January 2020 two female scimitar-horned oryx were transferred from Fota Wildlife Park to Le Pal Zoo in France as part of EEP program recommendations.

The female Indian rhino 'Maya' arrived to Fota on the 23rd of January from Parc Animalier et Botanique de Branféré, France. Maya settled in to life at Fota very quickly and can be seen in the photo play-fighting with the Indian rhino male 'Jamil' who was born in Whipsnade Park and arrived to Fota in 2015. All three of the rhinos at Fota are just coming up to breeding age (8 years) and we hope so see baby rhinos born in Fota within the next two to three years.

Four young Asiatic lions born at Fota were transferred to Le Parc des Félines, France to set up a new pride in this park that specialises in the husbandry and conservation of exotic cat species. The 3-year-old male Asiatic lion, Loki, was transferred to Lodz Zoo in Poland in July 2020 and two male saki monkeys were sent to Germany, all as part of EEP recommendations. Another arrival at the end of 2020 was a female Linne's two-toed sloth from Switzerland to pair with our male in the Tropical House.



(Above) Indian rhinos

A total of six cheetahs were born in March in two litters of which four survived, and a further litter of three cheetah cubs were born in June 2020, bringing the total number of cheetah cubs born to over 230 since 1984. Fota Wildlife Park is the largest breeder of cheetahs outside of Africa.

Fota Wildlife Park also sends cheetahs born at Fota to many other zoos and wildlife parks, and in 2020 two males went to Berlin Tierpark, Germany, two females went to Pairi Daiza in Belgium and a female to CERZA Zoo in France. All these transferred cheetahs were born at Fota Wildlife Park and the recommendations were made as part of the EEP programme which Fota manage on behalf of the European Association of Zoos and Aquaria. Other births of endangered species at Fota during 2020 include twin red panda cubs, twin black-and-white ruffed lemurs, one Colombian spider monkey and a lion-tailed macaque.

In the Tropical House, the following species hatched and survived: 25 golden sawfin fish, six pot-bellied seahorses and 20 phantasmal poison dart frogs.

One Critically Endangered elongated tortoise was also hatched in the Tropical House during 2020, which brings the total hatched at Fota to nine and is a significant breakthrough in the breeding of this species. When the initial four elongated tortoises arrived at Fota in September 2013 from Port Lympne Wild Animal Park in the UK they were considered Vulnerable (VU) in the wild, but within just six years this species has become extremely rare in the wild and is now considered Critically Endangered (CR).



This plight of the elongated tortoise differs drastically from that of the European bison which we breed at Fota and which have been re-introduced to the wild. The European bison went extinct in the wild approximately 100 years ago. The few remaining bison in captivity were bred in zoos and wildlife parks to a level that some could be reintroduced into the wild in Poland.

European bison born at Fota (one born in 2020) have been released into the wild in Poland, Romania and Spain. This species has gone from being extinct in the wild to over 3,000 animals now living in the wild and not considered under threat of extinction.



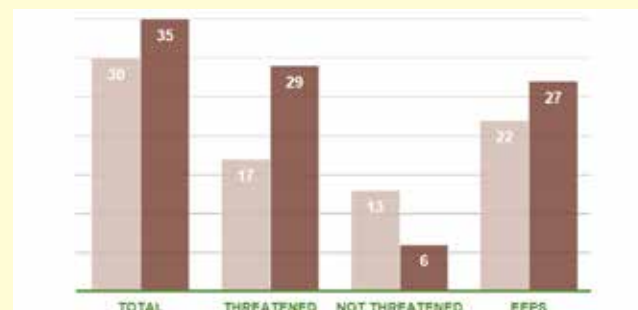
The European bison is a prime example of the conservation efforts undertaken by modern zoos and wildlife parks, and we hope the elongated tortoise follows a similar path to being not considered in danger of extinction in the wild.

(Above) Elongated tortoise hatchling

Conservation and Research Activities

One of the most important roles of animal species found at Fota Wildlife Park is that they act as a buffer against their extinction. Some of the species in the Wildlife Park were extinct in the wild and have been re-introduced back into their native habitats from a captive-bred population e.g. scimitar-horned oryx and European bison.

Other species, like the black-and-white ruffed lemur, have undergone a dramatic population reduction in the wild. The number of this species at Fota has grown from two to six individuals in the last two years. The more threatened an animal species in the wild, the greater the conservation value or necessity to prevent their extinction. During the last five years, Fota has further increased its involvement in the captive breeding and conservation of species that are in danger of extinction in the wild. The chart below demonstrates this increase in the conservation value of the mammal species at Fota Wildlife Park over the last five years.



The husbandry of these species is complex and specialised and requires high levels of funding to maintain them in a good state of husbandry and welfare with food and staffing costs throughout the year.

(Above) Increase in the conservation value of the mammal species at Fota Wildlife Park over the last five years

RESEARCH AND CONTRIBUTION TO FIELD CONSERVATION PROJECTS

Fota Wildlife Park contributed to the head-starter project for the Natterjack toad, with 5,600 toadlets being released back in Kerry in the past three years. The Wildlife Park is also home to 29 species of mammal that are threatened with extinction in the wild of which 27 species are part of European Species Conservation programmes or EEPs.

Conservation Research

Throughout 2020, Fota Wildlife Park continued its long-term collaboration with the School of Biological, Earth and Environmental Sciences (BEES), University College Cork, in the fields of animal behaviour, environmental enrichment, population biology and ecology. However, due to the Covid-19 pandemic and its associated restrictions, some research projects could not be undertaken while others have been suspended but will commence again in 2021.

Undergraduate projects completed in 2020

Fourth Year Honours research projects completed in 2020 by students from the School of BEES in UCC.

- Lydia Elliot- Behaviour of drills as they integrate at Fota Wildlife Park (Supervisors: Ruth Ramsay and Courtney Collins)

PhD student Projects 2020

University College Cork conferred the following two PhDs in 2020.

- Courtney Collins. The potential effect of zoo-based education programmes on children's learning. Co-supervised by Ruth Ramsay with Dr Declan Kennedy (Education).

She successfully defended her thesis on 22nd November and was conferred on 21st February 2020.

- Dr Rebecca Newman. The influence of wild and captive environments on populations of Lion-tailed macaques (*Macaca silenus*); behavioural responses to changes in population dynamics and different environments and the influence of diet on health and behaviour. Co-supervised by R. Ramsay and Dr T. Quirke. IRC- Enterprise Partnership Funded with Fota Wildlife Park. Enterprise Mentor: Mr S. McKeown, Fota Wildlife Park.

One PhD student project ongoing in 2020.

- Gill Weyman: Status, threats and conservation of ladybirds in Ireland (commenced October 2015). This project is documenting the occurrence and spread of the invasive Harlequin ladybird, *Harmonia axyridis*, which was first recorded in Ireland during 2010. The main aims of this research project are as follows:
 - To identify patterns of status and distribution of native ladybirds and the Harlequin Ladybird in Ireland.
 - To identify the ecological and physical factors that influence the patterns of distribution of ladybird species in Ireland.
 - To assess the pest control ecosystem service provided by ladybirds and the potential threat to this service by the Harlequin Ladybird.
 - To propose conservation strategies for endangered/vulnerable native ladybirds in Ireland, which will include a conservation breeding programs where necessary.



- To produce an education and awareness-raising programme on native ladybirds to complement a module on Ecology and Biodiversity for Fota Wildlife Park.

This continued in 2020 but due to Covid-19 and associated restrictions it was suspended and will commence again in 2021 when the remaining fieldwork can be completed.

Scientific Papers Published in 2020

Publication

- Collins, C., Corkery, I., McKeown, S., McSweeney, L., Flannery, K., Kennedy, D. & O’Riordan, R. (2020). An educational intervention maximises children’s learning during a zoo or aquarium visit. *The Journal of Environmental Education*, DOI: 10.1080/00958964.2020.1719022. impact factor 2.040
- Collins, C., Corkery, I., McKeown, S., McSweeney, L., Flannery, K., Kennedy, D. & O’Riordan, R. (2020) Quantifying the long-term impact of zoological education: a study of learning in a zoo and an aquarium. *Environmental Educational Research*. 26 (7), 1008-1026. DOI: 10.1080/13504622.2020.1771287 impact factor 2.255
- Newman, R., McKeown, S., Quirke, T. & O’Riordan, R.M. (2020). Introducing three new males into a captive Lion-tailed macaque, *Macaca silenus*, group. *Journal of Zoo and Aquarium Research*, 8, 212-217.

Fota Wildlife Park 2020 Animal Inventory

IUCN Status	SPECIES		Beginning	Births	Acquisitions	Dead	Dispositions	Ending
	INVERTEBRATES	INVERTEBRATA						
	CLASS: JELLYFISH	CLASS: SCYPHOZA						
	Moon jellyfish	<i>Aurelia aurita</i> *	0.0.21	0.0.0	0.0.0	0.0.0	0.0.21	0.0.0
	CLASS: INSECTS	CLASS: INSECTA						
	Madagascar hissing cockroach	<i>Gromphadorhina oblongonota</i> *	0.0.20	0.0.0	0.0.0	0.0.0	0.0.0	0.0.20
	Walkingstick	<i>Achrioptera manga</i> *	0.0.20	0.0.0	0.0.0	0.0.0	0.0.0	0.0.20
	Butterflies	<i>Papilionoidea</i> *	0.0.140	0.0.0	0.0.0	0.0.0	0.0.140	0.0.0
	VERTEBRATES	VERTEBRATA						
	CLASS: FISH	CLASS: PISCES						
LC	Laced moray	<i>Gymnothorax favagineus</i>	0.0.0	0.0.0	0.0.1	0.0.0	0.0.0	0.0.1
EN	Denison's barb	<i>Sahyadria denisonii</i> *	0.0.10	0.0.0	0.0.0	0.0.0	0.0.0	0.0.10
LC	Clown loach	<i>Chromobotia macracanthus</i> *	0.0.3	0.0.0	0.0.0	0.0.0	0.0.0	0.0.3
	Loach	<i>Beaufortia leveretti</i> *	0.0.5	0.0.0	0.0.0	0.0.0	0.0.0	0.0.5
	Buenos Aires tetra	<i>Hyphessobrycon anisitsi</i> *	0.0.34	0.0.0	0.0.0	0.0.0	0.0.0	0.0.34
	Royal plecostomus	<i>Panaque nigrolineatus</i> *	0.0.1	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
EN	Madagascar rainbowfish	<i>Bedotia madagascariensis</i> *	0.0.55	0.0.0	0.0.0	0.0.1	0.0.0	0.0.54
VU	Red rainbowfish	<i>Glossolepis incisus</i> *	0.0.28	0.0.0	0.0.0	0.0.0	0.0.0	0.0.28
EN	Boeseman's rainbowfish	<i>Melanotaenia boesemani</i> *	0.0.57	0.0.0	0.0.0	0.0.0	0.0.38	0.0.19
LC	Goyder River rainbowfish	<i>Melanotaenia trifasciata</i> *	0.0.34	0.0.0	0.0.0	0.0.0	0.0.0	0.0.34
EN	Powderblue panchax	<i>Pachypanchax omalonota</i> *	0.0.12	0.0.0	0.0.0	0.0.1	0.0.0	0.0.11
EN	Panchax	<i>Pachypanchax sakaramyi</i> *	0.0.11	0.0.0	0.0.0	0.0.0	0.0.0	0.0.11
CR	Butterfly splitfin	<i>Ameca splendens</i> *	0.0.110	0.0.0	0.0.0	0.0.0	0.0.0	0.0.110
EW	Golden sawfin	<i>Skiffia francesae</i> *	0.0.32	0.0.25	0.0.0	0.0.0	0.0.0	0.0.57
LC	Pot-bellied seahorse	<i>Hippocampus abdominalis</i> *	0.0.17	0.0.6	0.0.0	0.0.1	0.0.0	0.0.22
LC	Banded archerfish	<i>Toxotes jaculatrix</i> *	0.0.15	0.0.0	0.0.0	0.0.1	0.0.0	0.0.14
LC	Diamond fish	<i>Monodactylus argenteus</i>	0.0.9	0.0.0	0.0.0	0.0.0	0.0.0	0.0.9
	African silverfish	<i>Monodactylus sebae</i> *	0.0.1	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1

	IUCN Status	SPECIES		Beginning	Births	Acquisitions	Dead	Dispositions	Ending
	LC	Teardrop butterflyfish	<i>Chaetodon unimaculatus</i>	0.0.0	0.0.0	0.0.2	0.0.0	0.0.0	0.0.2
	LC	Copperband butterflyfish	<i>Chelmon rostratus</i>	0.0.1	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
	LC	Schooling coachman	<i>Heniochus diphreutes</i>	0.0.0	0.0.0	0.0.3	0.0.0	0.0.0	0.0.3
	LC	Queen angelfish	<i>Holacanthus ciliaris</i>	0.0.0	0.0.0	0.0.1	0.0.1	0.0.0	0.0.0
	LC	French angelfish	<i>Pomacanthus paru</i>	0.0.0	0.0.0	0.0.1	0.0.0	0.0.0	0.0.1
	VU	Kieneri cichlid	<i>Paretroplus kieneri</i> *	0.0.6	0.0.0	0.0.0	0.0.0	0.0.0	0.0.6
		Clown anemonefish	<i>Amphiprion ocellaris</i> *	0.0.60	0.0.0	0.0.0	0.0.0	0.0.50	0.0.10
		Bluegreen chromis	<i>Chromis viridis</i> *	0.0.4	0.0.0	0.0.0	0.0.0	0.0.0	0.0.4
		Sapphire damselfish	<i>Chrysiptera cyanea</i> *	0.0.4	0.0.0	0.0.0	0.0.0	0.0.0	0.0.4
		Goldtail damselfish	<i>Chrysiptera parasema</i> *	0.0.4	0.0.0	0.0.0	0.0.0	0.0.0	0.0.4
	LC	Spotted scat	<i>Scatophagus argus</i> *	0.0.1	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
	LC	Foxface rabbitfish	<i>Siganus vulpinus</i> *	0.0.1	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
	LC	Fowler's surgeon	<i>Acanthurus fowleri</i> *	0.0.1	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
	LC	Palette surgeonfish	<i>Paracanthurus hepatus</i>	0.0.0	0.0.0	0.0.1	0.0.0	0.0.0	0.0.1
	LC	Red Sea sailfin tang	<i>Zebrasoma desjardini</i> *	0.0.1	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
	LC	Yellow tang	<i>Zebrasoma flavescens</i> *	0.0.2	0.0.0	0.0.0	0.0.0	0.0.0	0.0.2
		CLASS: AMPHIBIANS	CLASS: AMPHIBIA						
	CR	Axolotl	<i>Ambystoma mexicanum</i> *	0.0.2	0.0.0	0.0.0	0.0.0	0.0.0	0.0.2
	CR	Emperor spotted newt	<i>Neurergus kaiseri</i> *	0.0.32	0.0.0	0.0.0	0.0.0	0.0.0	0.0.32
	EN	Phantasmal poison dart frog	<i>Epipedobates tricolor</i> *	0.0.25	0.0.20	0.0.0	0.0.0	0.0.0	0.0.45
EEP	CR	Mountain chicken frog	<i>Leptodactylus fallax</i>	2.1.0	0.0.0	0.0.0	2.0.0	0.0.0	0.1.0
	CR	Golden mantella	<i>Mantella aurantiaca</i> *	0.0.4	0.0.0	0.0.0	0.0.0	0.0.0	0.0.4
	EN	Green mantella	<i>Mantella viridis</i> *	0.0.6	0.0.0	0.0.0	0.0.0	0.0.0	0.0.6
	LC	Sambava tomato frog	<i>Dyscophus guineti</i>	0.0.0	0.0.0	0.0.8	0.0.3	0.0.0	0.0.5
	LC	File-eared Tree Frog	<i>Polypedates otitophus</i> *	0.0.2	0.0.0	0.0.0	0.0.0	0.0.0	0.0.2
		Tonkin bug-eyed frog	<i>Theloderma corticale</i>	1.0.8	0.0.0	0.0.0	1.0.0	0.0.0	0.0.8

	IUCN Status	SPECIES		Beginning	Births	Acquisitions	Dead	Dispositions	Ending
		CLASS: REPTILES	CLASS: REPTILIA						
		Red-footed tortoise	<i>Chelonoidis carbonarius</i>	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	CR	Elongated tortoise	<i>Indotestudo elongata</i>	1.3.9	0.0.1	0.0.0	0.0.0	0.0.0	1.3.10
	LC	Veiled chameleon	<i>Chamaeleo calyptratus</i>	2.0.0	0.0.0	0.0.0	1.0.0	0.0.0	1.0.0
	EN	Lau banded iguana	<i>Brachylophus fasciatus</i>	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	LC	Green iguana	<i>Iguana iguana</i>	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	LC	Giant madagascar day gecko	<i>Phelsuma grandis</i>	1.2.5	0.0.1	0.0.0	0.0.1	0.0.0	1.2.5
	LC	Royal/ball python	<i>Python regius</i>	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
	LC	Dumeril's ground boa	<i>Acrantophis dumerili</i>	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
EEP	VU	Jamaican boa	<i>Chilabothrus subflavus</i>	0.0.2	0.0.0	0.0.0	0.0.0	0.0.0	0.0.2
		CLASS: BIRDS	CLASS: AVES						
	LC	Common ostrich	<i>Struthio camelus</i>	1.3.0	0.0.0	0.0.0	0.1.0	0.0.0	1.2.0
	NT	Lesser rhea	<i>Rhea pennata</i>	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
	LC	Helmeted guineafowl	<i>Numida meleagris</i>	8.6.29	0.0.16	0.0.0	1.0.12	0.0.0	7.6.33
	LC	Common peafowl	<i>Pavo cristatus</i>	5.14.1	0.1.0	0.0.0	0.0.0	0.0.0	5.15.1
	LC	Whistling duck	<i>Dendrocygna</i>	0.0.1	0.0.0	0.0.0	0.0.1	0.0.0	0.0.0
	LC	Black-bellied whistling duck	<i>Dendrocygna autumnalis</i>	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
	LC	Greylag goose	<i>Anser anser</i>	11.8.18	0.0.0	0.0.0	0.0.0	0.0.0	11.8.18
	LC	Pink-footed goose	<i>Anser brachyrhynchus</i>	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
	LC	Snow goose	<i>Anser caerulescens</i>	4.5.0	0.0.0	0.0.0	1.3.0	0.0.0	1.2.0
	NT	Emperor goose	<i>Anser canagicus</i>	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
	VU	Swan goose	<i>Anser cygnoid</i>	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
	LC	Bar-headed goose	<i>Anser indicus</i>	1.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
	LC	Brant goose	<i>Branta bernicla</i>	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	LC	Barnacle goose	<i>Branta leucopsis</i>	17.10.10	0.0.0	0.0.0	0.1.2	0.0.0	17.9.8
	EN	Red-breasted goose	<i>Branta ruficollis</i>	5.4.0	0.0.0	0.0.0	4.1.0	0.0.0	1.3.0
	VU	Ne-ne	<i>Branta sandvicensis</i>	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
	LC	Cereopsis goose	<i>Cereopsis novaehollandiae</i>	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0

	IUCN Status	SPECIES		Beginning	Births	Acquisitions	Dead	Dispositions	Ending
	LC	Coscoroba swan	<i>Coscoroba coscoroba</i>	2.0.0	0.0.0	0.0.0	1.0.0	0.0.0	1.0.0
	LC	Mandarin duck	<i>Aix galericulata</i>	11.6.11	2.2.0	0.0.0	0.0.1	0.0.0	13.8.10
	LC	North American wood duck	<i>Aix sponsa</i>	5.2.4	0.0.0	0.0.0	0.0.0	0.0.0	5.2.4
	LC	Northern pintail	<i>Anas acuta</i>	1.1.1	0.0.0	0.0.0	0.1.1	0.0.0	1.0.0
	CR	Baer's pochard	<i>Aythya baeri</i>	0.2.0	0.0.0	0.0.0	0.1.0	0.0.0	0.1.0
	LC	Tufted duck	<i>Aythya fuligula</i>	4.3.11	0.0.0	0.0.0	0.0.0	0.0.0	4.3.11
	NT	Ferruginous duck	<i>Aythya nyroca</i>	2.1.2	0.0.0	0.0.0	0.0.0	0.0.0	2.1.2
	LC	Magellanic goose	<i>Chloephaga picta</i>	0.0.1	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
	LC	Red-crested pochard	<i>Netta rufina</i>	4.4.0	0.0.0	0.0.0	1.0.0	0.0.0	3.4.0
	NT	Common eider	<i>Somateria mollissima</i>	4.1.0	0.0.0	0.0.0	3.0.0	0.0.0	1.1.0
	LC	Paradise shelduck	<i>Tadorna variegata</i>	1.0.0	0.0.0	0.0.0	1.0.0	0.0.0	0.0.0
	NT	Chilean flamingo	<i>Phoenicopterus chilensis</i>	1.4.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
	LC	Corncrake	<i>Crex crex</i>	7.5.0	5.2.0	0.0.0	1.3.0	0.0.0	11.4.0
EEP	VU	Humboldt penguin	<i>Spheniscus humboldti</i>	9.12.11	0.0.3	0.0.0	0.0.3	0.0.0	9.12.11
	LC	Eastern white pelican	<i>Pelecanus onocrotalus</i>	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
EEP	LC	White-tailed sea eagle	<i>Haliaeetus albicilla</i>	0.2.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
EEP	CR	Blue-throated macaw	<i>Ara glaucogularis</i>	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		CLASS: MAMMALS	CLASS: MAMMALIA						
		MARSUPIALS	MARSUPIALIA						
		MARSUPIAL MAMMALS	MARSUPIALIA						
		KOALAS, WOMBATS & KANGAROOS	DIPROTODONTIA						
ESB	LC	Eastern grey kangaroo	<i>Macropus giganteus</i>	5.8.0	3.0.0	0.0.0	1.0.0	0.0.0	7.8.0
	LC	Red-necked wallaby	<i>Macropus rufogriseus</i> *	0.0.180	0.0.0	0.0.0	0.0.0	0.0.0	0.0.180
		PLACENTAL MAMMALS	PLACENTALIA						
		SLOTHS & ANTEATERS	PILOSA						
ESB	LC	Linne's two-toed sloth	<i>Choloepus didactylus</i>	1.0.0	0.0.0	0.1.0	0.0.0	0.0.0	1.1.0

	IUCN Status	SPECIES		Beginning	Births	Acquisitions	Dead	Dispositions	Ending
		PRIMATES	PRIMATES						
EEP	VU	Red-bellied lemur	<i>Eulemur rubriventer</i>	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.4.0
EEP	EN	Ring-tailed lemur	<i>Lemur catta</i>	1.6.0	0.0.0	0.0.0	0.0.0	0.0.0	1.6.0
EEP	CR	Black-and-white ruffed lemur	<i>Varecia variegata</i>	3.1.0	1.1.0	0.0.0	0.0.0	0.0.0	4.2.0
EEP	LC	White-faced saki	<i>Pithecia pithecia</i>	3.3.0	0.0.0	0.0.0	0.0.0	2.0.0	1.3.0
EEP	NT	Black howler	<i>Alouatta caraya</i>	2.2.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
EEP	EN	Geoffroy's spider monkey	<i>Ateles fusciceps</i>	3.4.0	0.1.0	0.0.0	0.0.0	0.0.0	3.5.0
EEP	CR	Roloway monkey	<i>Cercopithecus roloway</i>	1.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
	VU	Grey-cheeked mangabey	<i>Lophocebus albigena</i>	1.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
EEP	EN	Lion-tailed macaque	<i>Macaca silenus</i>	10.13.0	0.0.0	0.0.0	0.0.0	0.0.0	10.13.0
EEP	EN	Drill	<i>Mandrillus leucophaeus</i>	1.4.0	0.0.0	0.0.0	0.0.0	0.0.0	1.4.0
EEP	LC	Eastern black-and-white colobus	<i>Colobus guereza</i>	3.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
EEP	EN	Francois' langur	<i>Trachypithecus francoisi</i>	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
	EN	Agile gibbon	<i>Hylobates agilis</i>	1.2.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
EEP	EN	Lar gibbon	<i>Hylobates lar</i>	1.3.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
EEP	EN	Siamang	<i>Symphalangus syndactylus</i>	5.1.0	0.0.0	0.0.0	0.0.0	0.0.0	5.1.0
		RODENTS	RODENTIA						
	NT	Patagonian mara	<i>Dolichotis patagonum</i> *	0.0.3	0.0.0	0.0.0	0.0.2	0.0.0	0.0.1
	LC	Capybara	<i>Hydrochoerus hydrochaeris</i>	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		CARNIVORES	CARNIVORA						
EEP	NT	Cheetah	<i>Acinonyx jubatus</i>	7.10.0	5.6.0	0.0.0	3.3.0	2.3.0	7.10.0
EEP	EN	Lion	<i>Panthera leo</i>	2.6.0	0.0.0	0.0.0	0.0.0	1.4.0	1.2.0
EEP	CR	Tiger	<i>Panthera tigris</i>	3.2.0	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0
	LC	Slender-tailed meerkat	<i>Suricata suricatta</i>	2.2.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
	LC	Grey seal	<i>Halichoerus grypus</i>	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0



	IUCN Status	SPECIES		Beginning	Births	Acquisitions	Dead	Dispositions	Ending
	LC	Harbor seal	<i>Phoca vitulina</i>	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
EEP	EN	Red panda	<i>Ailurus fulgens</i>	1.3.0	0.2.0	0.0.0	0.0.0	0.0.0	1.5.0
		ODD-TOED UNGULATES	PERISSODACTYLA						
	NT	Plains zebra	<i>Equus quagga</i>	3.2.0	0.0.0	0.0.0	0.0.0	0.0.0	3.2.0
EEP	VU	South American tapir	<i>Tapirus terrestris</i>	4.3.0	0.0.0	0.0.0	0.0.0	0.0.0	4.3.0
EEP	VU	One-horned rhinoceros	<i>Rhinoceros unicornis</i>	2.0.0	0.0.0	0.1.0	0.0.0	0.0.0	2.1.0
		EVEN-TOED MAMMALS	CETARTIODACTYLA						
EEP	CR	Visayan warty pig	<i>Sus cebifrons</i>	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
EEP	EN	Alfred's spotted deer	<i>Rusa alfredi</i>	0.2.0	0.0.0	0.0.0	0.1.0	0.0.0	0.1.0
EEP	VU	Giraffe	<i>Giraffa camelopardalis</i>	3.9.0	0.0.0	0.0.0	0.0.0	0.0.0	3.9.0
EEP	NT	European wisent	<i>Bison bonasus</i>	5.10.0	2.1.0	0.0.0	1.2.0	0.2.0	6.9.0
EEP	EW	Scimitar-horned oryx	<i>Oryx dammah</i>	6.9.0	0.0.0	0.0.0	0.0.0	0.2.0	6.7.0
ESB	EN	Southern lechwe	<i>Kobus leche</i>	3.9.0	1.1.1	0.0.0	1.0.1	0.0.0	3.10.0
		TOTAL		213.230.1092	19.17.73	0.2.17	23.17.33	5.7.249	204.225.884

* = Group inventory counts included in row

** = Colony counts included in row

+ = Both group and colony counts included in row



THE ZOOLOGICAL SOCIETY OF IRELAND

**(A company limited by guarantee and
not having a share capital)**

Reports and Consolidated
Financial Statements
for the financial year ended
31 December 2020

Registered number: 207824

Registered Charity Number: 20003715

THE ZOOLOGICAL SOCIETY OF IRELAND

CONTENTS	PAGE
MEMBERS OF BOARD AND OTHER INFORMATION	63 - 64
BOARD'S REPORT	65 - 68
BOARD'S RESPONSIBILITIES STATEMENT	69
INDEPENDENT AUDITOR'S REPORT	70 - 74
CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT	75
CONSOLIDATED BALANCE SHEET	76 - 77
COMPANY BALANCE SHEET	78 - 79
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY	80
COMPANY STATEMENT OF CHANGES IN EQUITY	81
CONSOLIDATED STATEMENT OF CASH FLOWS	82
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS	83 - 109

(A company limited by guarantee and not having a share capital)

MEMBERS OF BOARD AND OTHER INFORMATION

Members of Board:

Board president	Ann Keenan	
Immediate past president	Michael Daly	
Ordinary Board members	Dorothy Kilroy John McMahon Carmel O'Connor Tom Cassin	Nigel Bell Andy Beer

Other information:

Past presidents	Margaret Sinanan Tom Dunphy
Honorary treasurer	Nigel Bell
Honorary secretary	Dorothy Kilroy
Secretary and registered office	John Sweeney The Zoological Gardens, Phoenix Park, Dublin 8

THE ZOOLOGICAL SOCIETY OF IRELAND

MEMBERS OF BOARD AND OTHER INFORMATION (Continued)

Auditors	Deloitte Ireland LLP Chartered Accountants and Statutory Audit Firm Deloitte & Touche House Earlsfort Terrace Dublin 2
Bankers	Ulster Bank Limited, 33 College Green, Dublin 2 Bank of Ireland, 2 College Green, Dublin 2 AIB, 66 South Mall, Cork
Solicitors	Mason Hayes & Curran, South Bank House, Barrow Street, Dublin 4 Ronan Daly Jermyn & Company, 12 South Mall, Cork
Charity Number	20003715
Company Number	207824

BOARD'S REPORT

The Board presents its annual report together with the audited consolidated financial statements for the financial year ended 31 December 2020.

Consolidation

These accounts form the Consolidated Accounts of the Zoological Society of Ireland which include the results of both Dublin Zoo and Fota Wildlife Park for the financial year ended 31 December 2020.

Principal activities, business review and future developments

The principal activities of the Zoological Society of Ireland ("the Society") are:

- (a) The operation of a Zoo in the Phoenix Park, Dublin.
- (b) To maintain the Fota Wildlife Park.
- (c) To promote the conservation of wildlife generally worldwide by advancing the study of environmental sciences and knowledge of zoology through science and scientific education.

The attendance for the financial year ended 31 December 2020 at Dublin Zoo was 460,483 (2019: 1,040,284). This was the first time in 10 years that Dublin Zoo did not have more than one million visitors and arose due to the impact of Covid-19 which resulted in the Zoo being closed to visitors for a considerable period of time during 2020. Fota Wildlife Park was also impacted and its attendance for the financial year ended 31 December 2020 fell to 384,901 (2019: 462,047).

As a result of the closures, the Group suffered a reduction in Gate, Annual Pass and Ancillary Income of more than €10.28 million. This resulted in significant operating losses of almost €4 million being incurred.

In order to maintain the viability of operations, Dublin Zoo developed a digital fundraising initiative to raise funds from the public to meet the costs of animal care and welfare. The fundraising initiative was launched in November 2020 and at year-end in excess of €2.7 million had been raised from the public. An amount of €2.2 million has been recognised in income in the current year.

The Group also received government support through wage subsidy schemes together with grant aid to support animal welfare. As a result, the Deficit for the year was reduced to €564,000.

The directors wish to express their gratitude and appreciation for the huge level of support received from the public and the various initiatives they organised to support the group.

The board also acknowledges the support received from the Government in the form of revenue grants, employment subsidies and also Capital grants which are due to be received during 2021.

In the early months of 2021, the Covid-19 pandemic resulted in both Dublin Zoo and Fota Wildlife Parks being closed once again for a period of time. The parks have now re-opened although with restricted attendance levels, in compliance with Government guidelines.

THE ZOOLOGICAL SOCIETY OF IRELAND

The parks are currently operating profitably. Although there is continuing uncertainty in relation to the ongoing impact of the Covid-19 pandemic, the Group hopes to generate a small surplus for the year to 31 December 2021.

Principal risks and uncertainties

The Board considers that the principal risks and uncertainties to the Society relate to

- weather conditions affecting visitor numbers;
- uncertainty impacting on the Society relating to an outbreak of animal disease;
- continuing uncertainties arising from the ongoing impact on visitor numbers due to the Covid-19 pandemic; and
- changes in the economic environment.

The Society is conscious of the financial impact of the above conditions and maintains adequate cash reserves to allow the Society to continue to trade in the event of risks that may impact the Society's ability to generate cash flow.

Results for the financial year

The results for the financial year and state of affairs of the Group are set out in the consolidated income and expenditure account and balance sheet on pages 75 and 76.

Board and Secretary for 2020

The members of Board, who served at any time during the financial year except as noted, were as follows:

Tom Dunphy	John McMahon
Dorothy Kilroy	Carmel O'Connor
Paul Burke Kennedy*	Andy Beer
Michael Daly	Tom Cassin**
Nigel Bell	James McMonagle***
Ann Keenan	

Retired during 2020, **appointed during 2020, * resigned during 2020*

Secretary:

John Sweeney

Legal status

The Society is limited by guarantee and has no share capital.

Subsidiaries

The statutory information concerning subsidiary undertakings is provided in Note 10 to the financial statements.

Governance

The Society is governed by a Board of directors, who under the Society's Articles of Association, are not entitled to remuneration for their services.

The members of the Board bring their varied experience in their respective fields to bear on guiding the Society. The members of the Board are legally responsible for the overall control and management of the Society.

The Board delegates the management of the day to day operation of the Society and Fota Wildlife Park, the implementation of policy and strategy to the Directors (Chief Executives) of Dublin Zoo and Fota Wildlife Park. The executive management teams, chaired by the Directors and consisting of key senior executives, are the main day to day decision-making fora of the Society and Fota Wildlife Park.

The Board believe that committing to a high level of corporate governance is essential to achieving the optimal standard of operation of the Society's activities. To accomplish this, the Society has a competent executive team. There is a clear division of responsibility with the Board retaining control of major decisions, with the Director responsible for devising strategy and policy within the authority delegated to him by the Board. The Board is responsible for providing leadership, setting the strategy and ensuring control.

The Society has a clear and detailed process for reporting management information to the Board. The Board is provided with regular information, which includes key performance and risk indicators for all aspects of the organisation. The Board meets regularly as required and met 10 times during 2020.

The Board recognise their overall responsibility for the Society's systems of internal control and for reviewing their effectiveness. They have delegated responsibility for the implementation of this system to the executive team. This system includes financial controls, which enable the Board to meet its responsibilities for the integrity and accuracy of the Society's accounting records.

The Board is supported by a number of sub-committees (not confined to Board members) established for good governance, as follows:

Finance and Audit Committee

The function of the Committee is to review internal financial controls, treasury. The Committee liaises with the external auditors and reports directly to the Board. It also monitors and reviews the financial performance, including remuneration issues of the Society.

Governance Committee

The function of the Governance Committee is to ensure that the composition of the Board and its Committees have the appropriate skills, knowledge and experience. It also ensures that there is effective succession planning.

Conservation & Research Committee

The responsibility of this Committee is to oversee conservation and research projects undertaken and supported by the Society.

THE ZOOLOGICAL SOCIETY OF IRELAND

Ethics Committee

The Ethics Committee was established to provide guidance and advice on all ethical matters that may arise. The Committee comprises members of the Board, the Zoo Director and some external appointments.

Programmes Committee

The responsibility of this Committee is to oversee management processes and ensure that any changes and improvements are implemented. The Committee comprises three members of the Board.

Health and Safety Committee

The responsibility of this Committee is to oversee the health and safety function and ensure that any changes and improvements are implemented. The Committee comprises three members of the Board and the Zoo Director.

Accounting Records

The measures that the directors have taken to secure compliance with the requirements of sections 281 to 285 of the Companies Act 2014 with regard to the keeping of accounting records are the employment of appropriately qualified accounting personnel and the maintenance of computerised accounting systems. The company's accounting records are maintained at the Society's registered office in the Zoological Gardens, Phoenix Park, Dublin 8.

Post Balance Sheet Events

Subsequent to the year-end, both parks were closed again for a number of months. The parks have now reopened and are currently operating profitably although at restricted attendance levels, in compliance with Government guidelines.

Although there is continuing uncertainty in relation to the ongoing impact of the Covid-19 pandemic, the Group expects to generate a small surplus for the year to 31 December 2021.

Health and Safety Policy

The Society has prepared a health and safety policy which is being complied with and satisfactorily operated.

Political Donations

The Society did not make any political donations during the financial year, which require disclosure in accordance with the Electoral Act, 1997.

Going Concern

Further details regarding the adoption of the going concern basis can be found in Note 3 to the financial statements.

(A company limited by guarantee and not having a share capital)

Statement On Relevant Audit Information

Each of the persons who are directors at the time when this Directors' report is approved has confirmed that:

- There is no relevant audit information of which the Company's auditors are unaware; and
- The Board Members have taken all the steps that they ought to have taken as Board Members in order to make themselves aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

AUDITORS

The auditors, Deloitte Ireland LLP, Chartered Accountants and Statutory Audit Firm, continue in office in accordance with Section 383(2) of the Companies Act 2014.

Approved by the Board and signed on its behalf by:

Ann Keenan
Board President

Nigel Bell
Honorary Treasurer

Date: 30 July 2021

BOARD'S RESPONSIBILITIES STATEMENT

The directors are responsible for preparing the directors' report and the financial statements in accordance with the Companies Act 2014.

Irish company law requires the directors to prepare financial statements for each financial year. Under the law, the directors have elected to prepare the financial statements in accordance with FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland issued by the Financial Reporting Council ("relevant financial reporting framework"). Under company law, the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the assets, liabilities and financial position of the company as at the financial year-end date and of the profit or loss of the company for the financial year and otherwise comply with the Companies Act 2014.

In preparing those financial statements, the directors are required to:

- Select suitable accounting policies for the Company Financial Statements and then apply them consistently;
- Make judgements and estimates that are reasonable and prudent;
- State whether the financial statements have been prepared in accordance with the applicable accounting standards, identify those standards, and note the effect and the reasons for any material departure from those standards; and

THE ZOOLOGICAL SOCIETY OF IRELAND

- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.
- Have been properly prepared in accordance with the relevant financial reporting framework and, in particular, with the requirements of the Companies Act 2014.

The directors are responsible for ensuring that the company keeps or causes to be kept adequate accounting records which correctly explain and record the transactions of the company, enable at any time the assets, liabilities, financial position and profit or loss of the company to be determined with reasonable accuracy, enable them to ensure that the financial statements and directors' report comply with the Companies Act 2014 and enable the financial statements to be audited. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Report on the audit of the financial statements

Opinion on the financial statements of the Zoological Society of Ireland (a Company Limited by Guarantee and not Having a Share Capital) (the 'company')

In our opinion the group and parent company financial statements:

- Give a true and fair view of the assets, liabilities and financial position of the group and parent company as of 31 December 2020 and of the Loss of the group and parent company for the financial year then ended; and

The financial statements we have audited comprise:

The group financial statements:

- The Consolidated Income and Expenditure Account;
- The Consolidated Balance Sheet;
- The Consolidated Statement of Changes in Equity;
- The Consolidated Statement of Cash Flows; and
- The related notes 1 to 19, including a summary of significant accounting policies as set out in note 1.

The parent company financial statements:

- The Balance Sheet;
- The Statement of Changes in Equity; and
- The related notes 1 to 19, including a summary of significant accounting policies as set out in note 1.

The relevant financial reporting framework that has been applied in the preparation of the group financial statements is the Companies Act 2014 and FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" issued by the Financial Reporting Council ("the relevant financial reporting framework"). The relevant financial reporting framework that has been applied in the preparation of the parent company financial statements is the Companies Act 2014 and FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" issued by the Financial Reporting Council ("the relevant financial reporting framework").

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (Ireland) (ISAs (Ireland)) and applicable law. Our responsibilities under those standards are described below in the “Auditor’s responsibilities for the audit of the financial statements” section of our report.

We are independent of the group and parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in Ireland, including the Ethical Standard issued by the Irish Auditing and Accounting Supervisory Authority, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors’ use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group and parent company’s ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Other information

The other information comprises the information included in the Reports and Consolidated Financial Statements for the financial year ended 31 December 2020, other than the financial statements and our auditor’s report thereon. The directors are responsible for the other information contained within the Reports and Consolidated Financial Statements for the financial year ended 31 December 2020. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

THE ZOOLOGICAL SOCIETY OF IRELAND

Responsibilities of directors

As explained more fully in the Directors' Responsibilities Statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view and otherwise comply with the Companies Act 2014, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group and parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group and parent company or to cease operations or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (Ireland) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (Ireland), we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the group and parent company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the group and parent company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion.

(A company limited by guarantee and not having a share capital)

Our conclusions are based on the audit evidence obtained up to the date of the auditor's report. However, future events or conditions may cause the entity (or where relevant, the group) to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the business activities within the group to express an opinion on the (consolidated) financial statements. The group auditor is responsible for the direction, supervision and performance of the group audit. The group auditor remains solely responsible for the audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that the auditor identifies during the audit.

Report on other legal and regulatory requirements

Opinion on other matters prescribed by the Companies Act 2014

Based solely on the work undertaken in the course of the audit, we report that:

- We have obtained all the information and explanations which we consider necessary for the purposes of our audit.

- In our opinion, the accounting records of the parent company were sufficient to permit the financial statements to be readily and properly audited.
- The parent company financial statements are in agreement with the accounting records.
- In our opinion, the information given in the directors' report is consistent with the financial statements and the directors' report has been prepared in accordance with the Companies Act 2014.

Matters on which we are required to report by exception

Based on the knowledge and understanding of the group and the parent company and its environment obtained in the course of the audit, we have not identified material misstatements in the directors' report.

We have nothing to report in respect of the provisions in the Companies Act 2014 which require us to report to you if, in our opinion, the disclosures of directors' remuneration and transactions specified by law are not made.

THE ZOOLOGICAL SOCIETY OF IRELAND

Use of our report

This report is made solely to the company's members, as a body, in accordance with Section 391 of the Companies Act 2014. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Richard Howard

For and on behalf of Deloitte Ireland LLP
Chartered Accountants and Statutory Audit Firm
Deloitte & Touche House, Earlsfort Terrace, Dublin 2

Date: 30 July 2021

(A company limited by guarantee and not having a share capital)

CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020

	Notes	2020 €'000	2019 €'000
INCOME	4	14,168	22,212
EXPENDITURE			
Operating costs		(14,976)	(19,826)
Administration expenses		(895)	(904)
TOTAL EXPENDITURE		(15,871)	(20,730)
OPERATING (DEFICIT)/SURPLUS BEFORE COVID RELATED INCOME SUPPORTS	6	(1,703)	1,482
Covid Related Income Supports	8	1,104	-
OPERATING (DEFICIT)/SURPLUS		(599)	1,482
Interest payable	7	-	(12)
Interest income	7	3	10
Amortisation of government grants	14	32	32
(DEFICIT)/SURPLUS FOR THE FINANCIAL YEAR		(564)	1,512

THE ZOOLOGICAL SOCIETY OF IRELAND

CONSOLIDATED BALANCE SHEET AS AT 31 DECEMBER 2020

	Notes	2020 €'000	2019 €'000
Fixed Assets			
Tangible assets	9	<u>27,535</u>	<u>29,919</u>
Current Assets			
Stocks	11	203	313
Debtors	12	670	1,431
Cash at bank and in hand			
– Restricted - OPW grant	13	30	30
– Restricted – Save Dublin Zoo funds	13	2,285	-
– Restricted – Lemur fund	13	12	-
– Unrestricted		<u>5,101</u>	<u>6,174</u>
		8,301	7,948
Creditors: Amounts falling due within one year	13	(4,979)	(6,436)
Net current assets		<u>3,322</u>	<u>1,512</u>
Total assets less current liabilities		30,857	31,431
Other deferred grants	14	<u>(251)</u>	<u>(283)</u>
NET ASSETS EXCLUDING PENSION			
Pension asset	15	<u>279</u>	<u>279</u>
NET ASSETS INCLUDING PENSION ASSET		<u>30,885</u>	<u>31,427</u>

(A company limited by guarantee and not having a share capital)

CONSOLIDATED BALANCE SHEET AS AT 31 DECEMBER 2020 (Continued)

	Notes	2020 €'000	2019 €'000
Represented by:			
Accumulated surplus		10,245	10,155
Development reserve		19,962	19,000
Emergency reserve		678	2,272
		<u>30,885</u>	<u>31,427</u>

The financial statements were approved and authorised for issue by the Board of Directors on 22 July 2021 and signed on its behalf by:

Ann Keenan
Board President

Nigel Bell
Honorary Treasurer

THE ZOOLOGICAL SOCIETY OF IRELAND

COMPANY BALANCE SHEET AS AT 31 DECEMBER 2020

	Notes	2020 €'000	2019 €'000
Fixed Assets			
Tangible assets	9	16,950	18,882
Financial assets	10	500	500
		<u>17,450</u>	<u>19,382</u>
Current Assets			
Stocks	11	92	212
Debtors			
— Due within one year	12	522	1,451
— Due after one year	12	0	100
Cash at bank and in hand:			
— Restricted - OPW grant	13	30	30
— Restricted – Save Dublin Zoo funds	13	2,284	0
— Restricted – Lemur fund	13	12	0
— Unrestricted		3,146	5,287
		<u>6,085</u>	<u>7,080</u>
Creditors: Amounts falling due within one year	13	<u>(3,184)</u>	<u>(4,873)</u>
Net current assets excluding pension asset		2,901	2,207
Pension asset	15	167	167
Net current assets including pension asset		<u>3,068</u>	<u>2,374</u>
NET ASSETS		<u>20,518</u>	<u>21,756</u>

(A company limited by guarantee and not having a share capital)

COMPANY BALANCE SHEET AS AT 31 DECEMBER 2020 (Continued)

	Notes	2020 €'000	2019 €'000
Represented by:			
Accumulated surplus		8,865	8,509
Development reserve		10,975	10,975
Emergency reserve		678	2,272
		<u>20,518</u>	<u>21,756</u>

The financial statements were approved and authorised for issue by the Board of Directors on 22 July 2021 and signed on its behalf by:

Ann Keenan
Board President

Nigel Bell
Honorary Treasurer

THE ZOOLOGICAL SOCIETY OF IRELAND

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020

	Development	Emergency	Accumulated	
	Reserve	Reserve	Surplus	Total
Notes	€'000	€'000	€'000	€'000
Balance at 1 January 2019	19,000	2,272	8,643	29,915
Surplus for the financial year	–	–	1,512	1,512
Transfers between reserves	–	–	–	–
At 31 December 2019	19,000	2,272	10,155	31,427
Surplus for the financial year	–	–	(542)	(542)
Transfers between reserves	962	(1,595)	633	–
At 31 December 2020	<u>19,962</u>	<u>677</u>	<u>10,247</u>	<u>30,885</u>

The Board members continue to monitor the strategic development of the Zoo & park facilities and have set aside funds to finance future capital investment projects in the emergency reserve.

In prior years, the board created an Emergency Reserve to set aside funds to protect against the impact of any zoonotic disease or another emergency that might affect the ongoing finances of the group. These funds were called upon during 2020 as a result of the Covid-19 pandemic. The Board hopes to re-state this reserve to prior levels once the ongoing finances of the group permit.

(A company limited by guarantee and not having a share capital)

COMPANY STATEMENT OF CHANGES IN EQUITY FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020

	Development	Emergency	Accumulated	
	Reserve	Reserve	Surplus	Total
Notes	€'000	€'000	€'000	€'000
Balance at 1 January 2019	10,975	2,272	7,448	20,695
Surplus for the financial year	–	–	1,061	1,061
Transfers between reserves	–	–	–	–
	<u>10,975</u>	<u>2,272</u>	<u>8,509</u>	<u>21,756</u>
At 31 December 2019				
Surplus for the financial year	–	–	(1,238)	(1,238)
Transfers between reserves	–	(1,595)	1,595	–
	<u>–</u>	<u>(1,595)</u>	<u>1,595</u>	<u>–</u>
At 31 December 2020	<u>10,975</u>	<u>677</u>	<u>8,866</u>	<u>20,518</u>

In prior years, the board created an Emergency Reserve to set aside funds to protect against the impact of any zoonotic disease or other emergency which might affect the ongoing finances of the company. These funds were called upon during the 2020 as a result of the Covid-19 pandemic. The board hopes to re-instate this reserve to prior levels once the on-going finances of the company permit.

THE ZOOLOGICAL SOCIETY OF IRELAND

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020

	Notes	2020 €'000	2019 €'000
NET CASH INFLOW FROM OPERATING ACTIVITIES	17	<u>2,294</u>	<u>5,034</u>
Cash flows from investing activities			
Payment to acquire tangible fixed assets		(1,073)	(4,912)
Interest received		3	10
Interest paid		<u>0</u>	<u>(12)</u>
Net cash outflow from investing activities		<u>(1,070)</u>	<u>(4,914)</u>
Cash flows from financing activities			
Repayment of bank loan		<u>-</u>	<u>(120)</u>
Net cash outflow from investing activities		<u>-</u>	<u>(120)</u>
MOVEMENT IN CASH IN THE FINANCIAL YEAR	17	<u>1,224</u>	<u>(911)</u>
Cash and cash equivalents at beginning of financial year		<u>6,204</u>	<u>6,204</u>
Cash and cash equivalents at end of financial year		<u>7,428</u>	<u>6,204</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020

1. ACCOUNTING POLICIES

The principal accounting policies are summarised below. They have all been applied consistently throughout the current and the preceding financial year.

General Information and Basis of Accounting

The Zoological Society of Ireland is a company incorporated in Ireland under the Companies Act 2014. The address of the registered office is given on page 63. The nature of the company's operations and its principal activities are set out in the Board's report on pages 65 - 68.

The financial statements have been prepared under the historical cost convention and in accordance with the Companies Act 2014 and Financial Reporting Standard 102 (FRS 102) issued by the Financial Reporting Council. The consolidated financial statements incorporate the financial statements of the company and its subsidiary undertaking for the financial year ended 31 December 2020.

The functional currency of the Zoological Society of Ireland is considered to be Euro because that is the currency of the primary economic environment in which the company operates.

Income

Income comprises of gate receipts, annual pass, donations, government funding and membership subscriptions relating to the current period. Where subscriptions are received in advance or income relates to future performance requirement, the related revenue is included in deferred income in creditors and released to the income and expenditure account in the relevant period.

Life membership subscriptions are amortised to the income and expenditure account based on the estimated useful life of membership which is considered ten years.

Other income comprises the value of sales, excluding VAT and discounts, to third parties and is recognised once the related goods or services are provided to customers.

Foreign Currencies

Transactions in foreign currencies are recorded at the rate at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are reported at the rates of exchange prevailing at that date. Exchange differences are recognised in the income and expenditure account in the period in which they arise.

Taxation

Dublin Zoo is regarded by the Revenue Commissioners as established for charitable purposes and, accordingly, is exempt from corporation tax.

THE ZOOLOGICAL SOCIETY OF IRELAND

Restricted cash

Where cash balances are ring fenced for specific purposes and may not be available for general use by the Group, the cash balance is noted as being restricted.

Tangible Fixed Assets and Depreciation

Tangible fixed assets are stated at cost less accumulated depreciation and any provision for impairment. The charge for depreciation is calculated to write down the cost of tangible fixed assets to their estimated residual values by equal annual instalments over their expected useful lives as follows:

Plant, machinery and equipment	20%
Computer equipment and software	33.3%
Motor vehicles	20%
Habitats	10%

Land and assets under construction are not depreciated.

Residual value represents the estimated amount which would currently be obtained from disposal of an asset, after deducting estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

An asset is impaired where there is objective evidence that, as a result of one or more events that occurred after initial recognition, the estimated recoverable value of the asset has been reduced to below its carrying amount. The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use.

Where indicators exist for a decrease in impairment loss, the prior impairment loss is tested to determine reversal. An impairment loss is reversed on an individual impaired asset to the extent that the revised recoverable value does not lead to a revised carrying amount higher than the carrying value had no impairment been recognised.

Financial Fixed Assets

Financial fixed assets are stated at cost less provision for impairment. An asset is impaired where there is objective evidence that, as a result of one or more events that occurred after initial recognition, the estimated recoverable value of the asset has been reduced to below its carrying amount.

Government Support

The land in the Phoenix Park occupied by Dublin Zoo is used under a licence from the State, Dublin Zoo being a tenant at will. No value is reflected in these financial statements in respect of this licence or this land. The Government Capital Investment Programme in Dublin Zoo is provided and accounted for by the Office of Public Works (OPW) and any related assets are therefore excluded in these financial statements. The accounts of Dublin Zoo reflect only its disbursements for the OPW under this programme. The facilities provided under this Programme are used by Dublin Zoo under licence from the State.

Government grants received are accounted for when received or if conditions exist, when those conditions are met.

Other Government grants in respect of capital expenditure are credited to a deferred grant account and are amortised to the income and expenditure account by equal annual instalments over the expected useful lives of the related assets.

Leases

Rentals under operating leases are charged on a straight-line basis over the lease term, even if the payments are not made on such a basis. Benefits received and receivable as an incentive to sign an operating lease are similarly spread on a straight-line basis over the lease term.

Animals

No value is placed on the animals belonging to the Society.

Stocks

Stocks, other than animals, are stated at the lower of cost and net realisable value.

Grants

Capital grants are accounted for in the financial year in which they are received and credited to the Income and Expenditure Account on the same basis as the related fixed assets are depreciated.

Retirement Benefits

For defined benefit schemes the amounts charged to the operating surplus are the costs arising from employee services rendered during the period and the cost of plan introductions, benefit changes, settlements and curtailments. They are included as part of staff costs. The net interest cost on the net defined asset/liability is charged to the income and expenditure account. Remeasurement comprising actuarial gains and losses and the return on scheme (excluding amounts included in net interest on the net defined benefit asset/liability) are recognised immediately in other comprehensive income.

A defined benefit scheme is funded, with the assets of the scheme held separately from those of the Society, in separate trustee administered funds. Pension scheme assets are measured at fair value and liabilities are measured on an actuarial basis using the projected unit method. The actuarial valuations are obtained at least triennially and are updated at each balance sheet date.

For the defined contribution scheme the amount charged to the income and expenditure account in respect of pension costs and other post-retirement benefits is the contributions payable in the year. Differences between contributions payable in the year and contributions actually paid are shown as either accruals or prepayments in the balance sheet.

THE ZOOLOGICAL SOCIETY OF IRELAND

Financial Instruments

Financial assets and financial liabilities are recognised when the company becomes a party to the contractual provisions of the instrument. Financial liabilities are classified according to the substance of the contractual arrangements entered into.

All financial assets and liabilities are initially measured at transaction price (including transaction costs), except for those financial assets classified as at fair value through the income and expenditure account, which are initially measured at fair value (which is normally the transaction price excluding transaction costs), unless the arrangement constitutes a financing transaction. If an arrangement constitutes a financing transaction, the financial asset or financial liability is measured at the present value of the future payments discounted at a market rate of interest for a similar debt instrument.

Financial assets and liabilities are only offset in the statement of financial position when, and only when there exists a legally enforceable right to set off the recognised amounts and the company intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Financial assets are derecognised when and only when a) the contractual rights to the cash flows from the financial asset expire or are settled, b) the company transfers to another party substantially all of the risks and rewards of ownership of the financial asset, or c) the company, despite having retained some, but not all, significant risks and rewards of ownership, has transferred control of the asset to another party.

Financial liabilities are derecognised only when the obligation specified in the contract is discharged, cancelled or expires.

Financial assets and liabilities that are classified as receivable or payable within one year on initial recognition are measured at the undiscounted amount of the consideration expected to be received or paid, net of impairment.

Non-current bank debt is measured at amortised cost using the effective interest method.

2. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of accounting policies, which are described in note 1, the Board members are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis.

Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

The following are the critical judgements and estimates that the Board members have made in the process of applying the accounting policies and that have the most significant effect on the amounts recognised in the financial statements:

Retirement Benefit Obligations

The estimation of and accounting for retirement benefit obligations involves judgements made in conjunction with independent actuaries. There are estimates in respect of life expectancy of scheme members, increase in salaries, inflation as well as discount rates. The assumptions used are disclosed in note 15.

Useful economic lives

The annual depreciation charge for tangible fixed assets is sensitive to changes in the estimated useful economic lives and residual values of the assets. Determination of appropriate useful economic lives is a key judgement and the useful economic lives and residual values are re-assessed annually. They are amended when necessary to reflect current estimates, based on technological advancement, future investments, economic utilisation and the physical condition of the assets.

3. GOING CONCERN

The financial statements have been prepared using the going concern basis of accounting.

During the year under review, the Covid-19 pandemic resulted in both Dublin Zoo and Fota Wildlife Park being closed for a period of time and the Group suffered a reduction in Income of more than €10 million. This resulted in significant operating losses being incurred which were mitigated by a public fundraising campaign and State supports received.

Subsequent to the year end, both parks were closed again for a number of months. The parks have now re-opened although with restricted attendance levels, in compliance with Government guidelines.

The parks are currently operating profitably such that the Group expects to generate a small surplus for the year to 31 December 2021.

The Directors have reviewed the performance of the Company and Group to date in 2021 and also considered future cashflow projections for the foreseeable future, together with existing cash resources and banking facilities available. Having considered future cashflow projections and existing cash resources, the Directors consider that the Company and Group have adequate resources to continue in operational existence for the foreseeable future. On this basis the Directors continue to adopt the going concern basis of accounting in preparing the annual financial statements.

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

4. INCOME	2020	2019
Operating Income arising from the following activities undertaken wholly within Ireland.	€'000	€'000
Gate receipt income	7,576	15,149
Annual pass and membership income	2,167	2,907
Shop income	1,578	2,979
Other income	604	1,177
	<hr/>	<hr/>
Operating income	11,925	22,212
Fundraising income (a)	2,243	0
	<hr/>	<hr/>
	14,168	22,212
	<hr/>	<hr/>

(a) During the year under review, the Covid-19 pandemic resulted in both Dublin Zoo and Fota Wildlife Park being closed for a period of time and the Group suffered a reduction in gate, annual pass and ancillary Income of more than €10.28 million. This resulted in significant operating losses being incurred.

In order to maintain the viability of operations, Dublin Zoo developed a digital fundraising initiative to raise funds from the public to meet the costs of animal care and welfare. The fundraising initiative was launched in November 2020 and at year end in excess of €2.7 million had been raised from the public. An amount of €2.2 million has been recognised in income in the current year.

Where an element of the fundraising was in respect of a future performance requirement, such as admission, the related revenues are included in deferred income and released to the income and expenditure account in the period in which the performance criteria is satisfied.

Given the nature of the Zoo's activities, goods and services are donated to the Zoo by other organisations where the fair value of such goods and services may not be readily determinable.

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

5. EMPLOYEE INFORMATION

	2020	2019
Staff numbers and costs		
Average number of employees:		
Management	16	16
Administration	12	17
General staff		
- full time	56	70
- part time	28	37
Shop	12	27
	<u>124</u>	<u>167</u>

The aggregate payroll costs of these persons were as follows

	2020	2019
	€'000	€'000
Wages and salaries	4,613	6,389
Social welfare costs	366	780
Retirement benefit costs (Note 15)	246	245
	<u>5,225</u>	<u>7,414</u>

The total remuneration for sixteen key management personnel for the financial year totalled €1,088,463 (2019: €1,171,116 for sixteen key management personnel).

All payroll costs were expensed during the current and prior financial year.

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

6. OPERATING SURPLUS	2020	2019
The operating surplus is stated after charging:	€'000	€'000
Remuneration of Board members	-	-
Auditor's remuneration in respect of		
- the audit of the entity	26	22
- the audit of subsidiary entity	8	8
- tax services	14	14
- other services	0	2
Depreciation	3,444	3,357
Operating lease charges	6	25

Under the Society's Articles of Association, Board members are not entitled to remuneration. Auditor's remuneration is disclosed net of VAT.

7. INTEREST	2020	2019
<i>Interest payable</i>	€'000	€'000
On bank loans due within five years	-	12
<i>Interest income</i>		
Deposit interest	3	10
	3	10

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

8. COVID-19 RELATED INCOME SUPPORT

During 2020, the Group received government support through wage subsidy schemes together with grant aid to support animal welfare. These are one off items relating to the Covid-19 pandemic supports that do not form part of on-going turnover.

9. TANGIBLE FIXED ASSETS

Group

	Land €'000	Plant Machinery & Equipment €'000	Computer Equipment €'000	Motor Vehicles €'000	Buildings & Habitats €'000	Total €'000
Cost:						
At 1 January 2020	191	4,435	1,163	705	45,426	51,920
Additions	–	122	7	2	929	1,060
At 31 December 2020	191	4,557	1,170	707	46,355	52,980
Depreciation:						
At 1 January 2020	–	3,988	1,106	497	16,410	22,001
Charge for financial year	–	172	33	43	3,196	3,444
At 31 December 2020	–	4,160	1,139	540	19,606	25,445
Net Book Value:						
At 31 December 2020	191	397	31	167	26,749	27,535
At 31 December 2019	191	447	57	208	29,016	29,919

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

9. TANGIBLE FIXED ASSETS (Continued)

Company	Land €'000	Plant Machinery & equipment €'000	Computer equipment €'000	Motor vehicles €'000	Buildings & Habitats €'000	Total €'000
Cost:						
At 1 January 2020	191	2,012	1,162	337	30,194	33,896
Additions	—	1	7	-	863	871
At 31 December 2020	191	2,013	1,179	337	31,057	34,767
Depreciation:						
At 1 January 2020	—	1,870	1,106	251	11,787	15,014
Charge for financial year	—	58	33	18	2,694	2,803
At 31 December 2020	—	1,928	1,139	269	14,481	17,817
Net Book Value:						
At 31 December 2020	191	85	31	68	16,574	16,950
At 31 December 2019	191	142	56	86	18,407	18,882

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

10. FINANCIAL ASSETS

Company

	2020	2019
	€'000	€'000
At beginning and end of financial year	<u>500</u>	<u>500</u>

The Society's financial asset comprises its investment in Fota Wildlife Park Limited ("Fota"), a company limited by guarantee. Fota is accounted for as a subsidiary undertaking as the Society is a member of Fota Wildlife Park Limited and has the power to appoint a majority of the Governors of the Fota Board.

Details in respect of Fota are set out below:

Name and registered office	Country of Incorporation	Principal activity
Fota Wildlife Park Limited	Ireland	Operation of a wildlife park

	2019	2018
	€'000	€'000
In respect of prior financial year		
At beginning and end of financial year	<u>500</u>	<u>500</u>

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

The Society's financial asset comprises its investment in Fota Wildlife Park Limited ("Fota"), a company limited by guarantee. Fota is accounted for as a subsidiary undertaking as the Society is a member of Fota Wildlife Park Limited and has the power to appoint a majority of the Governors of the Fota Board.

Details in respect of Fota are set out below:

Name and registered office	Country of Incorporation	Principal activity
Fota Wildlife Park Limited	Ireland	Operation of a wildlife park

11. STOCKS	Group		Company	
	2020 €'000	2019 €'000	2020 €'000	2019 €'000
Shops	133	290	68	190
Consumables	70	22	24	22
	<u>203</u>	<u>313</u>	<u>92</u>	<u>212</u>

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

12. DEBTORS

	Group		Company	
	2020	2019	2020	2019
	€'000	€'000	€'000	€'000
<i>Amounts falling due within one year:</i>				
Trade debtors	214	465	184	436
Prepayments and other debtors	330	532	236	428
VAT	126	434	102	381
Amounts due from subsidiary	-	-	11	6
Loan to subsidiary	-	-	-	200
	<u>670</u>	<u>1,431</u>	<u>533</u>	<u>1,451</u>
<i>Amounts falling due after more than one year:</i>				
Loan to subsidiary	-	-	-	100
	<u>-</u>	<u>-</u>	<u>-</u>	<u>100</u>

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

13. CREDITORS

(Amounts falling due within one year)

	Group		Company	
	2020	2019	2020	2019
	€'000	€'000	€'000	€'000
Trade creditors	912	2,415	664	1,959
Accruals	911	957	765	589
Deferred income	3,031	2,655	1,689	1,984
PAYE/PRSI	95	379	25	311
	<u>4,949</u>	<u>6,406</u>		<u>4,843</u>
OPW grant	<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>
	<u><u>4,979</u></u>	<u><u>6,436</u></u>	<u><u>3,173</u></u>	<u><u>4,873</u></u>

In prior periods, the OPW issued grants to the Society. These funds are to be used solely for purposes of development projects authorised by the OPW. All expenditure on such projects is approved by the OPW prior to payment. At 31 December 2020, €30,000 (2019: €30,000) remained unspent from the grant received and has been included in creditors and cash.

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

14. OTHER DEFERRED GRANTS

	Group	
	2020	2019
	€'000	€'000
Government grants		
Received and receivable:		
At beginning of financial year	835	835
Received during the financial year	<u>—</u>	<u>—</u>
At end of financial year	835	835
Amortisation:		
At beginning of financial year	552	520
Amortised to income and expenditure	<u>32</u>	<u>32</u>
At end of financial year	584	552
Net book amount	<u>251</u>	<u>283</u>

The total funding received to date of €200,000 from SECAD is subject to terms and conditions and if these are not adhered to, SECAD reserves the right to deem the contract to be invalid and all grant aid shall be immediately repayable.

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

15. RETIREMENT BENEFIT SCHEMES

Group

Defined contribution scheme

The Group operates a defined contribution retirement benefit scheme for all qualifying employees. The total expense charged to income and expenditure in the financial year ended 31 December 2020 was €187, 000 (2019: €192,000).

Defined benefit pension scheme

The Group operates a defined benefit pension scheme. Pension costs for the defined benefit pension scheme members are assessed in accordance with the advice of independent qualified actuaries using the projected unit method.

The most recent actuarial valuation of the Group's pension scheme was carried out as at 1 April 2019.

The financial assumptions used to calculate the value of the defined benefit pension scheme's liabilities under FRS 102 are:

	2020	2019
	%	%
Rate of general increase in salaries	2.5	3.0
Rate of increase in pensions in payment	0.0	0.0
Discount rate of scheme liabilities	0.7	1.0
Inflation	1.0	1.5
	<u>1.0</u>	<u>1.5</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

15. RETIREMENT BENEFIT SCHEMES (Continued)

Mortality

No mortality table used pre-retirement (all members assumed to survive to NRA). Post-retirement tables used are 62% PNML 00 (Males) and 70% PNFL 00 (females) plus allowance for future mortality improvements.

Expected Lifetime

The expected lifetime of a participant who is aged 65 and the expected lifetime (from the age 65) of a participant who will be aged 65 in 25 years are shown in years below based on the above mortality tables

AGE	Males	Females
65	23.5	24.7
65 in 25 years	<u>25.2</u>	<u>26.2</u>

Pension Asset

Amounts recognised in the income and expenditure account in respect of the defined benefit pension scheme are as follows:

	2020 €'000	2019 €'000
Current service cost	(54)	(46)
Net interest income	<u>6</u>	<u>11</u>
	<u>(48)</u>	<u>(35)</u>
Recognised in other comprehensive income	<u>—</u>	<u>—</u>
Total cost relating to defined benefit scheme	<u>(48)</u>	<u>(35)</u>

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

15. PENSION ASSET (Continued)

The amount included in the balance sheet arising from the group's obligations in respect of its defined benefit retirement scheme is as follows:

	2020	2019
	€'000	€'000
Fair value of assets	4,401	4,261
Present value of defined benefit obligations	(4,030)	(3,849)
Asset Ceiling	(92)	(133)
	<u>279</u>	<u>279</u>
Net asset recognised in the balance sheet	<u>279</u>	<u>279</u>

In assessing the carrying value of the defined benefit asset, the Directors have assessed what value is recoverable by the company in the foreseeable future. On that basis, the value of the asset has been kept at €279,000, reflecting the value of the reduced contributions over the foreseeable future.

Movements in the fair value of scheme assets were as follows:

	2020	2019
	€'000	€'000
At 1 January	4,261	3,805
Contributions	-	-
Benefits paid	(106)	(72)
Expected return on pension scheme assets	-	68
Actual return less expected return on pension scheme assets	246	460
	<u>4,401</u>	<u>4,261</u>
At 31 December	<u>4,401</u>	<u>4,261</u>

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

15. PENSION ASSET (Continued)

Movements in the present value of defined benefit obligations were as follows:

	2020	2019
	€'000	€'000
At 1 January	3,849	3,183
Service cost	54	46
Interest cost	38	57
Benefits paid	(106)	(72)
Actuarial loss/(gain)	195	635
	<u> </u>	<u> </u>
At 31 December	<u>4,030</u>	<u>3,849</u>

The analysis of the scheme's assets at the balance sheet date was as follows:

	Fair value	Fair value
	at	at
	31 December	31 December
	2020	2019
	€'000	€'000
Equities	0	851
Bonds	4,401	3,262
Property	0	33
Other	0	115
	<u> </u>	<u> </u>
Total market value of assets	<u>4,401</u>	<u>4,261</u>

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

15. PENSION ASSET (Continued)

Company

Defined contribution scheme

The Group operates a defined contribution retirement benefit schemes for all qualifying employees. The total expense charged to income and expenditure in the financial year ended 31 December 2020 was €152,000 (2019: €162,000).

Defined benefit scheme

Dublin Zoo participates in The Zoological Society of Ireland Employee Benefits Plan, a defined benefit scheme which includes employees of both Dublin Zoo and Fota Wildlife Park Limited (Fota). The net defined benefit asset/cost and contributions have been allocated based on an estimate of final pensionable salary of the employees of both Dublin Zoo and Fota.

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

15. PENSION ASSET (Continued)

Amounts recognised in the income and expenditure account in respect of the defined benefit pension scheme is as follows:

	2020	2019
	€'000	€'000
Current service cost	(54)	(32)
Net interest income	4	7
	<u>(50)</u>	<u>(25)</u>
Recognised in other comprehensive income	50	(105)
Total cost relating to defined benefit scheme	-	(130)

The amount included in the balance sheet arising from the group's obligations in respect of its defined benefit retirement scheme is as follows:

	2020	2019
	€'000	€'000
Fair value of assets	2,640	2,557
Present value of defined benefit obligations	(2,418)	(2,309)
Asset Ceiling	(55)	(81)
Net asset recognised in the balance sheet	167	167

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

15. PENSION ASSET (Continued)

Movements in the fair value of scheme assets were as follows:

	2020 €'000	2019 €'000
At 1 January	2,557	2,283
Contributions	-	-
Benefits paid	(63)	(43)
Expected return on pension scheme assets	-	41
Actual return less expected return on pension scheme assets	<u>147</u>	<u>276</u>
At 31 December	<u><u>2,641</u></u>	<u><u>2,557</u></u>

Movements in the present value of defined benefit obligations were as follows:

	2020 €'000	2019 €'000
At 1 January	2,310	1,910
Service cost	32	28
Interest cost	23	34
Benefits paid	(64)	(43)
Actuarial loss/(gain)	<u>117</u>	<u>381</u>
At 31 December	<u><u>2,418</u></u>	<u><u>2,310</u></u>

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

16. FINANCIAL INSTRUMENTS

The carrying values of the Group's financial assets and liabilities are summarised by category below:

	2020	2019
	€'000	€'000
Financial assets		
<i>Measured at undiscounted amount receivable</i>		
Trade debtors (Note 12)	<u>214</u>	<u>465</u>
	2020	2019
	€'000	€'000
Financial liabilities		
<i>Measured at undiscounted amount payable</i>		
Trade and other payables (Note 12)	<u>912</u>	<u>2,415</u>
	<u>912</u>	<u>2,415</u>
	2020	2019
	€'000	€'000
Interest expense		
Interest expense on financial liabilities measured at amortised cost (Note 7)	<u>-</u>	<u>12</u>

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

16. FINANCIAL INSTRUMENTS (Continued)

The carrying values of the company's financial assets and liabilities are summarised by category below:

	2020	2019
	€'000	€'000
Financial assets		
Measured at cost less impairment		
Investment in subsidiary (Note 10)	500	500
Measured at amortised cost		
Loan to subsidiary (Note 12)	-	300
Measured at undiscounted amount receivable		
Trade and debtors (Note 12)	184	436
Amount due from subsidiary (Note 12)	11	6
	<hr/>	<hr/>

(A company limited by guarantee and not having a share capital)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

16. FINANCIAL INSTRUMENTS (Continued)

	2020 €'000	2019 €'000
Financial liabilities		
Trade and other payables (Note 13)	<u>664</u>	<u>1,959</u>
	2020 €'000	2019 €'000
Interest income		
Interest income on financial assets measured at amortised cost	<u>3</u>	<u>10</u>

17. CASH FLOW STATEMENT

Reconciliation of operating surplus to cash generated by operations

	2020 €'000	2019 €'000
Operating (deficit)/surplus	(574)	1,482
Depreciation of tangible fixed assets	3,443	3,357
Decrease/ (increase) in stocks	111	(12)
Decrease / (Increase) in debtors	761	(473)
(Decrease)/increase in creditors	<u>(1,457)</u>	<u>679</u>
Cash generated by operations	<u>2,294</u>	<u>5,034</u>

THE ZOOLOGICAL SOCIETY OF IRELAND

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

17. CASH FLOW STATEMENT (Continued)

Analysis of movement in net funds

	At beginning of year €'000	Cashflows €'000	At end of year €'000
Cash at bank and in hand	6,174	1,224	7,398
Bank loan	-	-	-
Net funds	<u>6,174</u>	<u>1,224</u>	<u>7,398</u>

18. COMMITMENTS AND CONTINGENCIES

	2020 €'000	2019 €'000
Authorised and contracted for commitments	-	-
Authorised but not contracted for commitments	<u>2,250</u>	<u>2,250</u>

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2020 (Continued)

19. TAXATION

No liability to taxation arose during the financial year as the Society is exempt from corporation tax.

20. POST BALANCE SHEET EVENTS

Subsequent to the year end, both parks were closed again for a number of months. The parks have now re-opened and are currently operating profitably although at restricted attendance levels, in compliance with Government guidelines.

Although there is continuing uncertainty in relation the ongoing impact of the Covid 19 pandemic, the Group expects to generate a small surplus for the year to 31 December 2021.



RESTRICTED
AREA

ONE WAY
←
ONE WAY



*(Above) Siamang gibbon Cahaya and her infant
(Left) Signage indicating the one-way system*

Registered Charity Number: 20003715

Dublin Zoo, Phoenix Park, Dublin 8

T: (01) 474 8900 F: (01) 677 1660 E: info@dublinozoo.ie W: www.dublinozoo.ie

Fota Wildlife Park, Carrigtwohill, Co. Cork, Ireland

T: (021) 481 2678 F: (021) 4812744 E: info@fotawildlife.ie W: www.fotawildlife.ie

Photography by Patrick Bolger and Kate Cregan

Creative by Kate Cregan

Annual Report 2010/11 Social Investment



Our commitment to social investment is a key part of our business strategy. We invest in a range of social enterprises and community organizations that align with our values and contribute to the wider community. This report details our activities and the impact of our investments over the past year.

Our social investment portfolio includes a diverse range of organizations, from local charities to national social enterprises. We focus on areas such as education, employment, and social housing, where we can make a significant difference. Our investments are made through a variety of vehicles, including direct grants, loans, and equity investments.

Over the past year, we have supported a number of organizations that have made significant progress in their respective fields. Our investments have helped to create new jobs, improve educational outcomes, and provide affordable housing for those in need. We are proud of the impact we have made and look forward to continuing our social investment journey in the future.

Our social investment activities are supported by a dedicated team of professionals who work closely with our portfolio organizations. We provide ongoing support and guidance to ensure that our investments are effective and sustainable. We also work closely with our stakeholders, including our employees, customers, and the wider community, to ensure that our social investment strategy is aligned with our overall business goals.

Our social investment strategy is a key part of our corporate social responsibility (CSR) framework. We are committed to making a positive impact on society and to contributing to the wider community. Our social investment activities are a central part of this commitment and we will continue to invest in social enterprises and community organizations that align with our values and contribute to the wider community.

Our social investment activities are supported by a range of initiatives, including our social investment fund, our social investment advisory service, and our social investment network. These initiatives provide our portfolio organizations with the support and resources they need to succeed. We are committed to continuing to develop and enhance these initiatives to ensure that our social investment strategy is effective and sustainable.

Our social investment activities are a key part of our business strategy and we are committed to making a positive impact on society. We will continue to invest in social enterprises and community organizations that align with our values and contribute to the wider community. We are proud of the impact we have made and look forward to continuing our social investment journey in the future.

Our social investment activities are supported by a range of initiatives, including our social investment fund, our social investment advisory service, and our social investment network. These initiatives provide our portfolio organizations with the support and resources they need to succeed. We are committed to continuing to develop and enhance these initiatives to ensure that our social investment strategy is effective and sustainable.