

Z

CHESTER ZOO

magazine

for members and adopters

SUMMER 2019



Z MAGAZINE FEATURES

DATES FOR YOUR DIARY MEMBER'S DAYS: FRI 5 JULY & SUN 17 NOVEMBER. ADOPTER DAY: SUN 6 OCTOBER



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ZOO FIRST-DUSKY PADEMELON BORN!



We're celebrating the birth of the zoo's first dusky pademelon – a rare 'miniature kangaroo' from Indonesia.

The adorable joey started to peek out from the pouch of first-time mum Styx in April.

Dusky pademelons, also known as dusky wallabies, are small, hopping marsupials found in forests on the island of New Guinea, as well as some neighbouring islands.

The dusky pademelon is listed as vulnerable to extinction by the International Union for the Conservation of Nature (IUCN). Its population is estimated to have declined by 30% in the last 15-20 years, largely due to trapping, hunting and habitat loss.

Experts from the IUCN say that close monitoring of the species is needed to ensure the continued health and survival of the dusky pademelon in New Guinea.

SEVEN RARE LEMURS BORN!



Seven endangered ring-tailed lemur babies - including two sets of twins - and the zoo's first ever baby black lemur, a species which is vulnerable to extinction in the wild in Madagascar, are the latest arrivals being celebrated by conservationists at the zoo.

The lemurs of Madagascar are the planet's highest primate conservation priority, as habitat loss in the wild pushes multiple species to the brink of extinction.

The important births follow the creation of a major new 6,000 square metre Madagascar

zone at the zoo, recreating the dry forest habitat experienced by lemurs in the wild.

The ring-tailed lemurs live side-by-side with a group of critically endangered red ruffed lemurs in our first ever walk-through primate habitat.

Our conservationists have been fighting to protect habitats and species in Madagascar for nearly ten years. We have been working with field partners Madagasikara Voakajy in the country's Mangabe New Protected Area, in a bid to save this paradise and the unique range of animals that live in it.

For all of the zoo's latest news, go to chesterzoo.org/news

DOUBLE CELEBRATION

Giraffe keepers have welcomed two new born calves in two months!

The two youngsters, a boy and a girl, joined our Rothschild's giraffe herd just eight weeks apart.

The arrivals are part of a global breeding programme for the threatened animals, with the wild population standing at just 2,650.

The first leggy new arrival was born to 12-year-old mum Dagmar in March after a three-and-half-hour labour. The healthy male youngster, 'Mburo' is named after an area of Western Uganda where our field conservation partners are working to protect the species. The Giraffe Conservation Foundation (GCF) first translocated a group of Rothschild's giraffes to Mburo National Park in a vital conservation move to boost dwindling giraffe numbers.

Then in May, a second calf was born to mum Orla, after a 477 day pregnancy. Keepers dedicated her name, 'Karamoja', to the people in the region in Uganda where our zoo conservationists are working to protect some of the last remaining populations of wild Rothschild's giraffe.

Sarah Roffe, Giraffes Team Manager, said:

"There's something really special about watching a young Rothschild's calf strutting its stuff so having two to observe is wonderful. Both calves are coming on in leaps and bounds and their personalities are really starting to shine through."

Rothschild's giraffes are highly threatened with extinction although, thanks to successful conservation efforts, their numbers are known to be increasing in parts of Uganda, Africa.

Zoo experts, alongside (GCF) and the Uganda Wildlife Authority (UWA), have been working to protect one of the last remaining wild populations in Kidepo Valley National Park - where numbers have risen by 2,000% in the last 25 years.

In 1995 it was believed as few as just three giraffes remained there. However, in 1997, three more were translocated to the park from Kenya in an effort to boost numbers. Now, with 12 calves born in the last year, at least 60 giraffes are now known to live in the protected reserve.

Tim Rowlands, Curator of Mammals, added:

"Teams from the zoo regularly head out to Uganda to assist with the ongoing, monumental efforts to help prevent the extinction of the Rothschild's giraffe.

"While populations are still fragile and the threats of habitat loss and poaching remain for the majority of giraffes, there is certainly room for optimism in the areas where we work. Recent evidence now suggests that numbers are slowly increasing in these areas. It's a conservation success story that we're very proud to be a part of."



MONSOON FOREST CONSERVATION FUND

Five life-saving wildlife protection projects have been created thanks to the money donated by the public.

In the wake of December's fire in Monsoon Forest we were truly astounded by the extent of public support and we were overwhelmed by people's generosity after we received over £250,000 to the Monsoon Forest Conservation Fund. We have now created a series of new projects both here in the zoo, and out in the field, that will use these donations to help prevent extinction in the geographical area that Monsoon Forest represents.

Critically endangered orangutans in Indonesia, threatened by natural forest fires and the destruction they cause to their habitats, will be the first to benefit.

By helping to fight forest fires and restore fire-damaged habitat in the Sebangau National Park, conservationists will help to safeguard the largest remaining protected population of Bornean orangutans in the world. The Monsoon Forest funds – and additional expertise from the zoo's conservation team – will support a project run in partnership with the Borneo Nature Foundation.

Dr Simon Dowell, Science Director, said: "Every orangutan here in the zoo was safely led away from the fire we suffered last year, but there are orangutans in the wild that are not so fortunate. Natural forest fires, when combined with man-made changes to the habitat in Indonesia, are causing major problems for these incredible but critically endangered primates.

"As well as providing vital equipment to help tackle out of control forest fires, the zoo will support a scheme to block canals that were dug to drain the forest, allowing them to fill with water and re-wet the peat soil that underlies the forest. This will prevent the forest from drying out and stop uncontrolled fires that destroy the habitat for orangutans and other wildlife."

Meanwhile in Chester, the rebuilt Monsoon Forest, which is due to re-open to visitors in 2020, will include enhanced habitat for critically endangered Sumatran orangutans, as well as threatened rhinoceros hornbills. Specially designed adaptations will enrich the animals' environment once they move back into their refurbished homes, boosting the zoo's conservation breeding efforts.

Our field programme teams will also be delivering urgent new projects to prevent the extinction of the stunningly beautiful

bleeding toad and one of the world's rarest songbird species called the Barusan shama. Experts believe both of these species will go extinct without this intervention.

The critically endangered bleeding toad is now restricted to a tiny area of western Java and is thought to be in imminent danger of extinction. The Monsoon Forest Conservation Fund has provided an opportunity for zoo conservationists to prevent this extinction from happening by urgently assessing the toad's remaining population size and better understanding the threats it faces, in order to protect its remaining habitat. Experts from the zoo will also help to set up an emergency conservation breeding programme for the species, in Java and Chester.

The critically endangered Barusan shama is a songbird found only on the Barusan islands off the western coast of Sumatra. Its population has declined severely due to habitat loss and the illegal bird trade. It is now perilously close to extinction. Our specialists will immediately begin a conservation breeding programme, with field partners in Indonesia, to attempt to bring the species back from the brink.

Botanical conservationists at the zoo will also step up efforts to conserve some of the world's rarest carnivorous plants.

Our experts already care for a highly significant collection of the world's rarest pitcher plants, including a number of highly threatened nepenthes from South East Asia. Through new facilities for research and propagation, both at the zoo and in Indonesia, the funds will enable experts to boost disappearing populations.

Julie Platt, Fundraising Manager, said: "Our Monsoon Forest habitat was the largest zoological building in the UK when it opened in 2016, home to a huge range of rare, threatened South East Asian wildlife. It is very fitting therefore, that as we rebuild Monsoon Forest we will also be able to deliver even more conservation work in the field; protecting species that would almost certainly have gone extinct without emergency intervention.

"All this is because of the generosity of the zoo's incredible, passionate supporters. More than 8,000 people donated to the Monsoon Forest Conservation Fund last December, raising more than £250,000 for our work as a conservation charity. Thank you to each and every one of you; this will have a remarkable impact on wildlife conservation. Everyone who supported us is now a conservationist. Together, we can act for wildlife and prevent extinction."

WILDLIFE SPOTTING AT THE NATURE RESERVE



Our Nature Reserve sits adjacent to the entrance to the zoo and provides a protected habitat for threatened UK wildlife. It is home to a wide range of well-known, incredible local and national wildlife, including kingfishers, hedgehogs and harvest mice. However, many weird and wonderful creatures also reside here. Here are some of the more unusual inhabitants that you can look out for over the summer!

BROWN LONG-EARED BAT



As the name suggests, the defining feature of this bat is its huge ears, which are two-thirds the length of its body! They're also known as whispering bats. With those ears their hearing is excellent, so there's no need to shout. These bats primarily rely on sound to home in on their prey, which includes larger moths, beetles, earwigs and spiders, taken directly from leaves and other surfaces. This is one of our more common species of bat, but all British bat species have declined significantly over

the past century. Threats include intensification of farming, use of pesticides (leading to declines in insect food), loss of natural roosting sites (particularly woodland), and lack of suitable roof spaces in new buildings.

YELLOW RATTLE

Also known as 'hay-rattle' since the seeds rattle in their pods around late July, this plant may look innocent, but below ground it has a sinister secret! Yellow rattle is a plant-parasite and survives by stealing food from the roots of meadow grasses.

Once abundant in meadows across the UK, it has become much rarer due to loss of hay meadows. Today we can use the plant's super-power to suppress the grasses in the meadow at the Nature Reserve, which might otherwise smother other wildflowers. Yellow rattle makes an excellent addition to a 'garden meadow'; just add some seed to areas of grass that you leave uncut, and watch as the wildflowers flourish!



GRASSHOPPER WARBLER



For a secretive little bird, the grasshopper warbler sure can sing! It lives up to its name with a reeling song that sounds uncannily like a cicada or grasshopper. When you first hear it you will doubt that it's actually a bird at all – it sounds almost electronic, and the bird never seems to stop for breath! It's always a challenge to try and glimpse the brown bird, skulking in the undergrowth. They love areas with dense cover including bramble patches and the edges of reedbeds. One or two males are usually heard each year in the reedbed near the reserve. The

species is a summer visitor, making the mammoth trip from sub-Saharan Africa to northern Europe every spring. We're eagerly awaiting the first sighting of adults feeding chicks, especially as the species has declined massively in the UK (a 91% decline between 1969 and 2006). Hopefully our new meadow will provide plenty of invertebrate food for them for years to come.

CASED CADDIS-FLY LARVAE

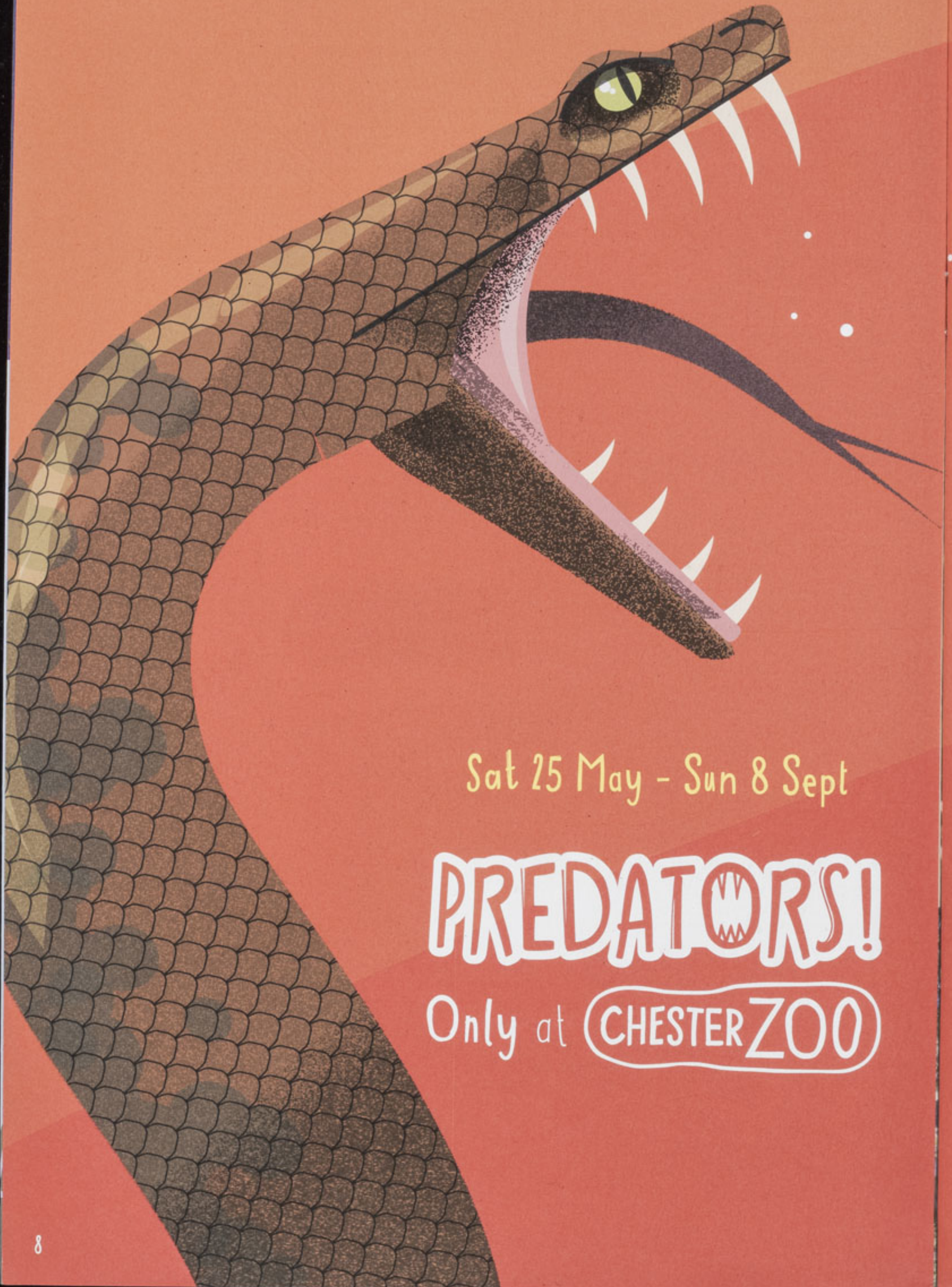
The scavengers of the deep; watch out for these heavily armoured miniature hunters creeping across in the darkest depths of the pond, searching for food. The ingenious grubs will encase themselves in a shelter so they don't become a meal themselves! Made from stones, leaves, plant stems or sand - woven together with silk secreted from near their mouths - their protective home also offers crucial camouflage in a dangerous world. If they're lucky enough to survive, they'll be able to leave the pond to explore the wider world as moths one day.



Don't forget to tell us about what you see when you visit the Nature Reserve by submitting information to RECORD, who track rare wildlife sightings. You also can post photos on our Act for Wildlife Facebook page.

CELEBRATING UK WILDLIFE

Our fourth Wildlife Connections Festival is taking place on Sat 14 and Sun 15 September on our Nature Reserve. Join us for free live music, food and fun, inspired by the wonderful wildlife around us. Meet our experts, join us on a British species safari, brush up on your bird box building skills, or simply enjoy the family friendly atmosphere. Drop in on either the Saturday or Sunday, or book early to snaffle one of the limited number of overnight camping tickets. Keep an eye on our website for more information.



Sat 25 May - Sun 8 Sept

PREDATORS!

Only at **CHESTER ZOO**

This SUMMER step back in time to meet the most

FEARSOME

creatures of the prehistoric world!

WHERE A **SHARK'S** BITE WAS

THREE METRES WIDE

AND **GIANT** SNAKES

ate crocodiles for breakfast!

Discover a world first exhibition of 13 life-sized animatronic **PREDATORS** lurking in Dragons Garden. But beware...they're still hungry!

BRINGING PREDATORS TO LIFE

These ferocious prehistoric predators were cleverly created by whizzes from Billings Productions Inc. – the company who brought you **DINOSAURS** back in 2016.



The Texas-based organisation is a world leader in animatronic exhibits, and experts in design, sculpting, mould-making, welding, electronics and painting. All things that bring these creatures to life!

SUMMER EVENTS



Join the Zoo Ranger team for fun and games and find out all about these incredible prehistoric predators! When? Every day at weekends and during school holidays. (22 July - 1 September)

DISCOVER... PREDATORS

When? 10.30-11.30am & 3.30-4.30pm
Where? Predators exhibition in Dragons Garden
Join us to get up close with some super skulls and fossils. Explore some of the most amazing predator adaptations.

PREDATOR STORIES

When? 12 noon
Where? Madagascar Basecamp
Come and hear about the baby tyrannosaurus trying to find his family. Perfect for all your little predators.

PREDATOR PROBLEMS

When? 2pm
Where? Madagascar Basecamp
Prehistoric predators may have returned from extinction this summer but some of our modern predators are in trouble right now. Do YOU have what it takes to help save them? Come along to practice your conservation skills and discover how to Act for Wildlife and prevent extinction.

SUPER-SIZED SPECIES

When you take a look around the Predators exhibition, you'll notice that some of the creatures might seem familiar...

Some of the species in the zoo are descendants of the predators on show, including Andean bears, komodo dragons, snakes, Sunda gharials, and Asian forest scorpions.

Although the giant bear would tower over its relative, the Andean bear, they each show many similarities. Andean bears are around 5 – 6 feet tall, whereas giant bears grew up to 10 feet tall, however they are very similar in appearance.

The prehistoric megalania was similar to monitor lizards around today, scavenging for food using their forked tongues.

The titanoboa was a GIANT snake (growing up to 12.8m long!), and is very similar to some of the snakes here at the zoo. Reticulated pythons, emerald tree boas and boelen pythons all

have similar behaviours to titanoboas, such as crushing their prey to death before swallowing them whole.

Our Sunda gharial crocodiles look very similar to the sarcosuchus, with their long, thin snouts. They also hunted in a similar way, except they couldn't clamp and 'death roll' with their prey as their skulls were too fragile.

Giant sea scorpions were very similar to Asian forest scorpions that you'll find at the zoo, although they were 2.5 metres long and thought to be the largest known arthropod.

The species in our Predators expedition are all examples of animals which have become extinct. Just like these species, many of the animals you find at the zoo are also at danger of vanishing in the wild through threats such as habitat loss, hunting and loss of biodiversity. Visit chesterzoo.org/actforwildlife to find out what you can do to help PREVENT EXTINCTION.

Returning rhinos to the wild

Chief Executive's comment, by Dr Mark Pilgrim



This summer I will be part of the largest reintroduction of eastern black rhinos back to Africa from Europe. Having managed the European zoo breeding population, officially called the European Endangered species Programme (EEP), for more than a decade it

will be a dream come true for me - and a huge boost to the future of this iconic species. So why is this happening and why now?

Sadly all of the world's rhino species are declining. At the beginning of the last century 500,000 rhinos lived across Africa and Asia but now very few live outside of nature reserves and national parks. Heartbreakingly in Africa, two species, the western black rhino and the northern white rhino, are now extinct in the wild. We must prevent this from happening to another species.

The eastern black rhino is being illegally hunted to the very edge of extinction. Black rhino populations have dropped by more than 95% over the last 100 years due to a global surge in illegal poaching for their horns, which continues to devastate the species. The International Union for the Conservation of Nature (IUCN) has listed the animals as critically endangered since 2000 - their wild numbers currently estimated at just 650 across Africa and just twelve years ago they completely disappeared in Rwanda, where they were declared extinct in 2007.

Back in the 1970's there had been a healthy population of black rhinos in Rwanda in the Akagera National Park but due to poaching and conflict the population completely disappeared. The political and security situation in Rwanda has now been stabilised so the Rwandan Government is keen to re-establish its wildlife and Akagera National Park is a perfect 112,000 hectare habitat for black rhinos to thrive.

Two years ago a decision was made to reintroduce 18 black rhinos into the park from the Thaba Tholo Reserve in South Africa. The move was successful, but in order for the species to thrive there it needs a more genetically diverse population. This is where European zoos come in. The EEP has been successful enough in recent years to be able to translocate young animals back to Africa while still maintaining more than enough genetic diversity in the remaining zoo population, which is wonderful. Earlier in the year I had five days of complex meetings with the African Rhino Specialist Group in Namibia. This group is made up of field conservations and large landowners. After an intense

few days, during which I presented to the group on behalf of the EEP, they were supportive of the reintroduction of rhinos from European zoos to the protected area of Akagera National Park. The European zoo population of rhinos comes from a diverse gene pool so moving a few select animals from the breeding programme to Akagera should help the population there to thrive.

We are now in the process of preparing these animals for their re-location. We have specially selected five rhinos, three females and two males from European zoos. The animals are now being trained for their transport, to ensure the moving process is as stress free as possible for the animals. As you can imagine, moving such large animals is not easy but the crates for the transport are under construction, the necessary permit applications are underway and the whole transportation is tentatively set for June. After arrival in Africa, the rhinos will acclimatise to their new environment and will be prepared for life in the bush of Akagera.

If the move is successful then we hope to supplement the Akagera population further from European zoo bred animals in the future. This is a major moment for zoos and for wildlife conservation. The future of eastern black rhinos could depend on it.





INNOVATIONS IN FIGHTING EEHV

Earlier this year, two-year-old Asian elephant calf, Indali survived a battle with elephant endotheliotropic herpesvirus (EEHV), due to ground-breaking developments in treatment methods developed in part by the zoo.

During an intensive two-week period, Indali received round-the-clock care to help her fight for her life: including nine anaesthetic procedures, innovative blood plasma transfusions, interferon therapy, anti-viral medications and immune boosting treatments, which helped Indali enter a recovery phase.

The problem

EEHV is a virus affecting elephants both in zoos around the world and across the animal's range in the wild.

Many adult elephants have EEHV, but their strong immune systems are able to fight the virus. For younger Asian elephants, the risk is far greater. Their natural defences are not yet strong enough to battle the pathogen, and the risk of death is severe. The virus multiplies in the young elephant until it reaches a critical point where symptoms appear and unfortunately this usually signals the end for the elephant.

Over recent years, here at the zoo we have seen the damage that EEHV can do. The tragic loss of our young elephants Nandita and Aayu last year remains fresh in our minds. Reports of wild baby elephant fatalities in India, Nepal, Myanmar and Thailand are also on the rise.

We are not just observers in this crisis. Backed by more than £240,000 in public donations, a major partnership with the Animal and Plant Health Agency (APHA), The University of Surrey, and an international collaboration between world-leading conservationists and scientists, we are driving forward pioneering research in the hope of better treatment and a cure for EEHV.

Raising the alarm

From 2010, Dr. Akbar Dastjerdi and his team at APHA have been striving to understand EEHV and provide methods to detect and identify infections before irreversible damage is caused. The hard work of MSc students Katherine Hardman and Anaïs Claessens established methods of detecting the virus from elephant blood and fluid samples.

The work undertaken since then by Dr Katharina Seilern-Moy and Hannah Davies during their PhDs at APHA and the University of Surrey has hugely increased our understanding of EEHV, and a refined method for detection has been made available to European zoos and laboratories. This method, known as PCR, detects EEHV DNA in blood or fluids.

It was this early warning system that on Wednesday 20 March alerted our science and veterinary teams here at the zoo that Indali had contracted the infection, well before symptoms had appeared. This head-start on the virus gave our teams across the zoo critical time to provide treatment.



The fight

Two new interventions in the fight against EEHV have recently been investigated here at the zoo, together with Dr. Dastjerdi at APHA and Professor Falko Steinbach at the University of Surrey. The first treatment uses immunostimulants; medications which work by stimulating the elephant's immune system, helping it to mount a response to the infection. The second treatment, developed by our Conservation Scholar, Jonathan Haycock, uses interferons which slow the virus's advance through the elephant's body.

Thanks to Indali's early EEHV diagnosis and treatment, adding immunostimulants and interferons to anti-viral medications, fluids and blood plasma donated from other adult elephants, together with vigilant care and monitoring from our dedicated team of keepers and vets, Indali is still with us today.

However, there is no simple solution to the fight.

Relying solely on the hope that EEHV will be caught at the right time and that these powerful treatments will always do the job is not yet enough. We're looking to longer term solutions to ensure a safe future for baby Asian elephants worldwide.

A brighter future

Dr Tanja Maehr – a Chester Zoo Conservation Fellow – and the teams at APHA and the University of Surrey are working to find ways to provide a long-term answer to preventing EEHV-induced deaths by preparing elephant immune system memory well before EEHV has a chance to strike.

Tanja believes that the best solution is a vaccine, which will work by introducing a harmless version of a disease into the body, triggering the immune system without any risk of disease.

Growing EEHV in the lab for this purpose has proved an incredible challenge so far. As an alternative, Tanja and Akbar's team at APHA are working on using the latest in vaccine technology, in which genes from EEHV are inserted into another, benign virus, which is used as a vaccine in place of EEHV. The modified virus tricks the immune system into producing defences against EEHV, readying the vaccine recipient for a real EEHV attack.

There is still a long road ahead of us in this research, but the first vaccine trials may be as close as a year or two away. With additional resources to continue this vital research, we really do believe that we can make EEHV a problem of the past for Asian elephant calves here at Chester Zoo and around the globe.

Your incredible support is making this invaluable research possible. For more information about how you can support our fight against EEHV, visit chesterzoo.org/neverforget

KIDS' ZOO

MEET THE PREDATORS

We're bringing all things predator to the zoo this summer, but before you step into this prehistoric world, brush up on some fun facts about the PREDATORS you'll discover.

DID YOU KNOW...?

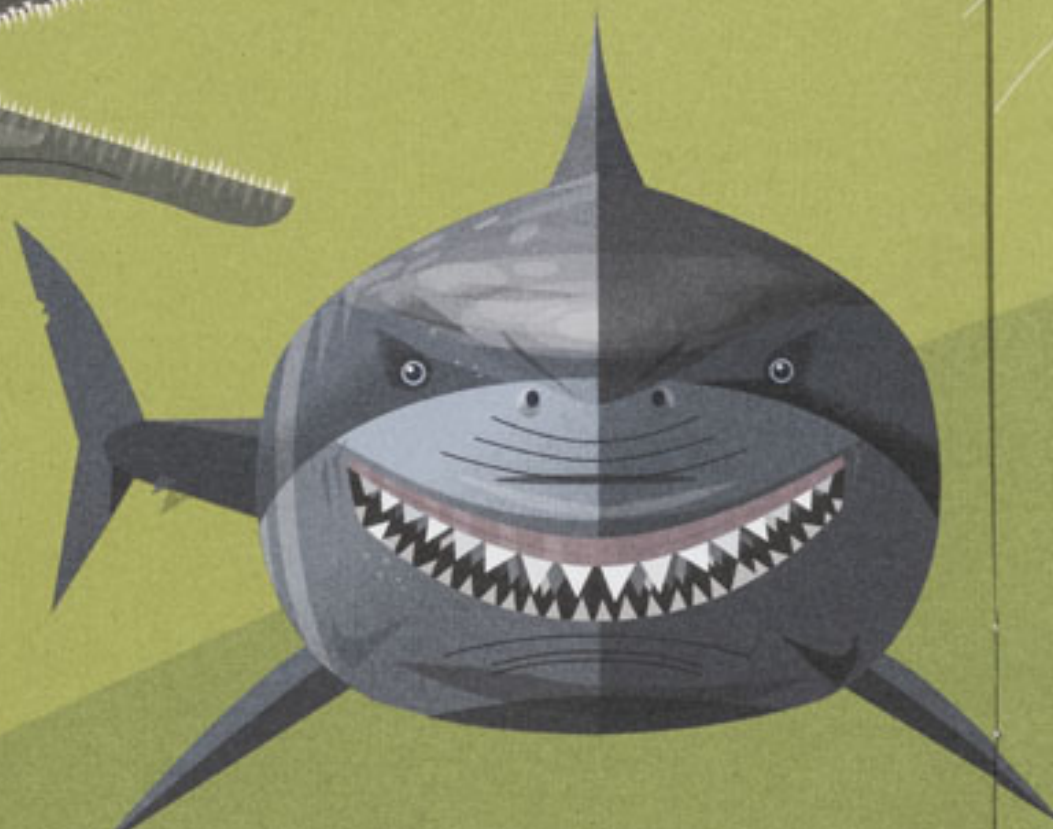
The sarcosuchus' name means 'flesh crocodile'

The allosaurus used its HEAD as a weapon!

The titanoboa snake would feed on giant turtles, large fish and even crocodiles!



Megalodons were so HUGE that they needed to eat 1,000kg of food every day!



The name smilodon is Greek for 'smile' or 'tooth'

The quetzalcoatlus was a bird with a 10 metre wingspan.

The dilophosaurus is the oldest predator in our exhibition, existing 190 MILLION years ago!



COMPETITION TIME!

See if you can guess which predator from above is in this picture and you could win a prehistoric prize!

Send your entries to: Z Magazine, Marketing Department, Chester Zoo, Upton-by-Chester, Chester, CH2 1LH or marketing@chesterzoo.org by 30 July 2019.

Winner of last competition: Sarah Singleton, Wrexham





CHESTER ZOO

JUNIOR MEMBERS' EVENTS

We have a huge variety of events that are available to Junior Members. Most are available to Junior Members aged 8-18 and all are available to book online. For more information please visit our website.

JUNIOR RANGERS TRAINING CAMPS 2019

Are you aged 8-11? Do you love wildlife? If so, Junior Rangers will be perfect for you!

The training camps run every Sunday for FIVE weeks. Each week we explore different parts of the zoo and learn about our amazing animals and incredible conservation work. You can now book for our blocks running 22 September - 20 October and 10 November - 8 December.

Until 30 June, you can take advantage of our special 'early bird' rate of £50 for all five sessions. After that the price will go up to £55.

You can find out more and book now on our website: chesterzoo.org/events. Places are limited and often get snapped up fast, so make sure you book soon to avoid disappointment!

SPECTACULAR SERPENTS!

Sunday 14 July
10.30am-12.30pm (age 8-12) and 2pm-4pm (age 13-17)

Discover the world of snakes and learn about snake ecology and behaviour with our Reptile and Zoo Ranger team. Following a talk and tour from a member of our reptile team, there will be lots of activities to get your teeth into including making foldable fangs to learn how snakes' teeth and jaws work together and exploring some of our amazing snake artefacts. It will also be a great opportunity to learn more about one of our unusual additions, the titanoboa!

WILDLIFE CONNECTIONS FESTIVAL

Saturday 14 September
8.30am-12pm and you are more than welcome to join us for the rest of the festival. It's festival time! Come and be immersed in everything UK wildlife! It will be an early start to go on a native species hunt. Then it's time to brush up on your building skills as you will get the chance to make your very own bird box to take home. With the help of our festival team we would love you to create the most amazing giant bug hotel which will take pride of place in the Nature Reserve ready for the festival.

LEAP FOR LEMURS

Saturday 26 October
10.30am-12.30pm (age 13-17) and 2pm-4pm (age 8-12)

Join us to celebrate the world of lemurs and meet our experts to learn everything there is to know about our species! You will become a behavioural scientist and help our research team to collect important data on our group of lemurs. You will also get the chance to explore our field conservation work in Madagascar.

SECRET LIFE OF THE ZOO

Saturday 23 November (age 8-12) & Sunday 24 November (age 13-17)
10am-3pm (2.30pm-3pm film premieres!)

Documenting our incredible animals and the conservation work both in the zoo and around the world gives people a huge insight into life at Chester Zoo. Join us to create your very own animal documentary and meet the team behind Channel 4's Secret Life of the Zoo. During the day you will be immersed into the world of documentaries and our amazing animals.

PECULIAR PLANTS

Sunday 15 December
10.30am-12.30pm (age 8-12) and 2pm-4pm
(age 13-17)

Get up close to some of the world's weirdest, wildest and most perfectly peculiar plants with our Zoo Ranger and Horticulture team. From plants that look like stones to avoid being eaten in the desert, to insect-eating killer plants and even giant smelly plants; they're all fascinating!



NATIVE SPECIES EVENTS

NATIONAL MEADOWS DAY

Saturday 6 July 2019

Drop in at our Nature Reserve to help us celebrate our beautiful meadows during this whole day event. Keep an eye on our website for further details.

LITTLE EXPLORERS OUTDOOR ADVENTURE CLUB

Calling all wildlife enthusiasts aged 5-8!
Join us to explore our amazing free-to-enter Nature Reserve and learn about a different group of wild UK animals.

- 20 July: Feathery Friends
- 27 July: Brilliant Bugs
- 3 August: Pond Creatures
- 17 August: Mammal Detectives

Each adventure starts at 10.15am and lasts around an hour. The club is FREE but advance booking is essential. Adventurers must be accompanied by their parents/guardians during the session.

LITTLE MONKEY MORNINGS

Wednesday 11 September-Wednesday
18 December

Got a little monkey in the family? We're hosting coffee mornings with a difference. Join us for our terrific tots sessions full of animal fun. Sessions are run in alternate locations between Bembe Coffee Shop and Jaguar Coffee Shop every Wednesday 10.30am-11.30am from 11 September until 18 December during term time only. Booking is essential. Sessions are charged at £2 per child and each booking will go live two weeks before the next event. These activities are suitable for children under 5 and are best suited to 1 to 3 year olds. Themes for each session are listed on the website and sessions may involve messy play and craft.

MARVELLOUS MOTHS - HELP US CELEBRATE NATIONAL MOTH WEEK!

Everyday from Monday 22 July -
Sunday 28 July

Discover moths...Drop-in 10.30am-11.30am, near to the elephant habitat, to discover more about our fluttery friends.

Moth chat...3pm inside Butterfly Journey

BRILLIANT BUTTERFLIES: BIG BUTTERFLY COUNT 2019

Wednesday 31 July

Take part in the big butterfly count with us and celebrate our amazing fluttery friends!

- Drop-in 10.30am-12pm outside the butterfly house.
- 2pm meet at the zoo entrance gates to join us for a wander down to our Nature Reserve. We'll be butterfly-counting there until 4pm so feel free to pop by.

Find a full list of events at
CHESTERZOO.ORG/EVENTS

Summer stampede!

Sunday 11 August 2019

We're holding our third annual Summer Stampede on Sunday 11 August 2019 and we'd love to have you on the team.

Join us in the fight against EEHV and raise funds for our Never Forget campaign by doing a sponsored walk with your favourite herd of people.

You can join us here in Chester or - for the very first time - you can join in wherever you are!

If you're near to Chester, why not come down to the zoo before we open and join in our organised walk? There'll be a talk and a warm-up with our Zoo Rangers, a chance

to chat with the elephant team, prizes to win, as well as goodies to take away on the day, plus entry to the zoo all day.

If you're too far away, there are still lots of ways you can get involved. We're asking people up and down the country to go on their own sponsored walk and to tag us throughout the day on social media. Once your fundraising is underway, we can send you a pack filled with elephant goodies so you can stampede away wherever you are and make a difference to elephant calves all over the world.

Visit our website to book your place and to find out more information – chesterzoo.org/stampede





A NEW HOME FIT FOR ROYALTY

A brand new habitat for the zoo's Asiatic lions is taking shape. This expansive zone will span 4,790 square metres and is inspired by the dry forest and savannah habitats of Gir National Park in India, the only place in the world where Asiatic lions still range. The habitat has been specially created for the lions and will be a boost to our work within the European endangered species breeding programme.

The build started in November last year and, as Christine Holt, Lead Project Manager explains, transforming a Cheshire field into the Gir Forest has been no easy feat:

"Lions have been at the zoo since the 1930s and they have always resided next to The Oakfield. Creating a brand new lion habitat in a new area has therefore been an interesting and exciting project but it also comes with its challenges.

"The first was to make this little slice of Cheshire, complete with its wet clay, into the dry arid landscape of the Gir Forest in India. We are reforming parts of the landscape by planting tree species with small leaves, multiple stems and thorns and placing these irregularly to give a scrubby, light forest feel. None of the plant species which grow in the Gir Forest would thrive in the UK climate, but we have included a few other Asian species, such as Japanese pagoda tree, Pride of India and Persian ironwood, which are all fully hardy. We'll also develop sandier areas for the lions to enjoy, close to the public viewing spots, and sand-coloured pathways in visitor areas are designed specially to blend in, helping people feel immersed into the landscape. This really helps us to connect people with wildlife.

"Indeed, visitors will experience really different viewing opportunities of this beautiful species. We have installed a hot rock to encourage the lions to stay close to the viewing

areas, and give visitors the opportunity to get up-close. Also incorporated into the large outside savannah area are mounds for the lions to rest on. These are high up and will provide the lions with a unique perspective on their habitat. Opposite this will be a mound for visitors to stand on, which will give people the opportunity to be at the same height as this stunning species. The large outdoor space will provide many enrichment opportunities for the lions, with a water hole, cave-like shelter and a zip wire for meat distribution to various points within the paddock. These all combine to provide world class husbandry facilities. There will also be opportunities to see the lions outside and in a covered indoor area, which will also be home to a family of mongoose.

"When building we were always mindful of the conservation storyline that's intertwined into the exhibit. Throughout this habitat, visitors will learn about the ecosystem of the Gir Forest which is home to the lion population and the local community, the Maldhari. There will be stories weaved into the exhibit showing how the Maldhari live alongside lions, sharing the positive message that predators and humans can co-exist in the same space.

"Once the build has been completed we'll hand over the habitat to the animal team to prepare it for the lions moving in. At that point we'll then start connecting this new area to the rest of the zoo. A new visitor pathway will be created near to the butterfly house, winding through the zoo's current perimeter fence to the new lion habitat. When you start to see this development in the zoo, you know we're nearly ready!"

The new lion habitat is due to open in the autumn. Look out for more updates and photographs in the next edition of Z.

WE ARE WORKING GLOBALLY TO SAVE BANTENG, BABIRUSA AND ANOA

Zoos, governments, conservationists and academics from around the world are joining forces to achieve greater impact through Action Indonesia, a global plan to protect three of Indonesia's most impressive and threatened species.

Banteng, babirusa and anoa aren't the usual species you'd think of as being at the heart of a global conservation plan, but these impressive animals have an unfortunate thing in common - they are all threatened by habitat loss and hunting. International specialists from over 50 organisations, including six Chester Zoo staff members, are combining their knowledge, skills and passion to protect these incredible Indonesian ungulates.

We have all three species here at the zoo and they are part of the ex-situ breeding programme, which ensures a healthy and genetically diverse population in zoos and helps prevent the species from going extinct. In Indonesia some of the banteng bred in zoos are being released into protected areas. Research in zoos and in the wild is helping us learn more about these species and how we can conserve them and their habitats. Engaging with the communities who live near wild populations is really important for tackling hunting of wild banteng, babirusa and anoa and safeguarding their habitats.



YOU CAN BE A PART OF IT TOO!

Raising awareness with zoo visitors and communities around the world is vital for spreading the word about these amazing animals and for building support for their conservation. Why don't you get involved and come to the zoo for the first ever Action Indonesia Day on Sunday 18 August! There will be lots of fun family activities such as mask making and talks to celebrate banteng, babirusa and anoa.

Save the date and find out more about how you can help to protect the amazing species at actionindonesiagsmp.org.



Stuart Young is the Programme Officer for the International Union for the Conservation of Nature (IUCN), Species Survival Commission (SSC), and Asian Wild Cattle Specialist Group, a position co-funded by Chester Zoo. He helps to coordinate the Action Indonesia partnership. Stuart explains:

"The collaboration between zoo experts, conservationists in the field and the Indonesian government has been key to the success of Action Indonesia so far. Chester Zoo is a major supporter, and it's great to see how the expertise provided by the zoo can help anoa, banteng and babirusa."





DISCOVER BEAUTIFUL ORCHIDS

Our Botany and Horticulture team maintain a stunning collection of plants and several award-winning gardens at the zoo. Orchids are just one of many families of endangered plants that our team grow in the Plant Project, our main greenhouse open to visitors, and also behind the scenes.

Our Curator of Botany and Horticulture, Phil Esseen, tells us more about orchids and why they are so important to conserve.

"There are nearly 400,000 species of vascular plants (plants that have specialised tissues for conducting water, minerals, and photosynthetic products) which have been identified, and around 2,000 new species are discovered each year. There are many major threats to these plants, including habitat loss and disturbance, invasive species, illegal trade, and climate change.

"Climate change is a serious threat to many species. For example, some of the pleurothallidinae orchids in our collection originate from very specific areas, at specific altitudes, temperatures and humidity. If this changes, most of these 'specialist' plants aren't going to be able to survive (they can't move or migrate like some animals can!).

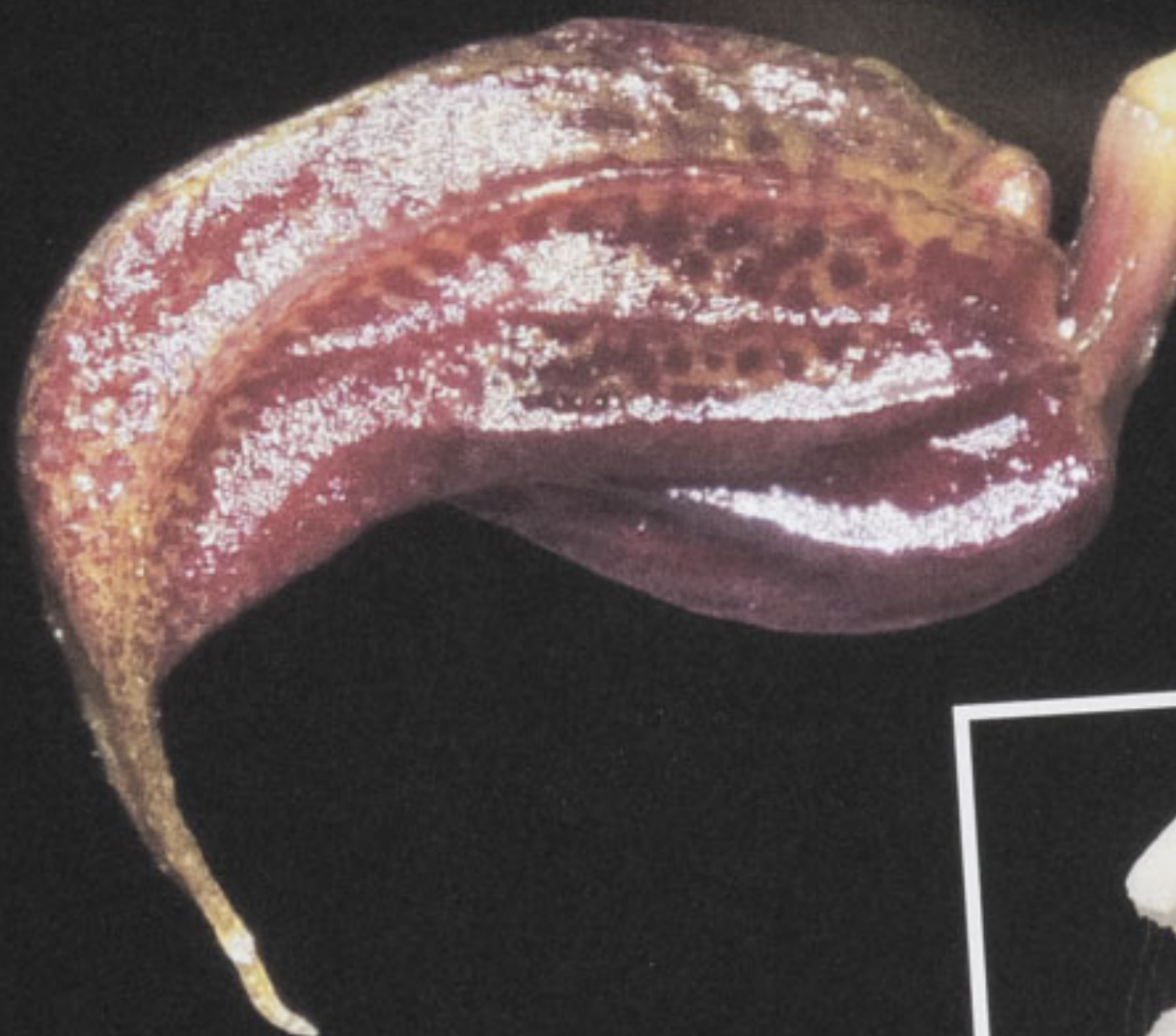
"Often a landscape might appear green and pleasant, but it

is often just composed of non-native plants which have been introduced into the area and take over because they are more competitive than the native species. If you lose the native plant species, you will also lose a lot of the animal species which live in that habitat and are dependent on them.

"It is also important to conserve plants because they might be of vital use to the human race in the future. Plants are great at synthesising chemical compounds (in many cases to help the plant fight fungal and bacterial diseases and deter animals from eating them), many of which have proved to be valuable medicines for humans, and we also depend on so many plants for food.

"We have five different 'national collections' of plants at the zoo, and many other threatened species. It is fundamentally important to keep rare plants such as these in a safe environment as a bank of living genetic material.

"As well as conserving rare plants by looking after specimens in the zoo, we are also involved with plant conservation in several other ways; for example propagating and reintroducing threatened native plant species, such as the endangered Llangollen whitebeam; working with partners in Indonesia on a holistic project to conserve native pitcher plants; and using our nursery skills to help grow rare trees as part of forest



regeneration schemes in the Mascarenes.

"There are thought to be around 30,000 species of orchids found all around the world and in many different habitats. Only a small proportion of these have actually been studied in the wild, so we don't know exactly how threatened some of them are. We look after lots of different species in the zoo, which we grow in greenhouses behind the scenes, and put out on display in the Plant Project or tropical houses when they are in flower.

"We have a special collection of pleurothallidinae orchids, which are all from Latin America. The flowers on these orchids are generally quite small but have fascinating shapes and colours; many of them have adapted to allow one specific species of insect to pollinate them. Because the pleurothallidinae orchids are not as big or as obviously exotic as some other orchid species, not many other botanical institutions specialise in keeping them.

"Most of them are 'epiphytic' (growing on trees) or 'lithophytic' (growing on rocks) rather than being rooted in soil; so they are very dependent on humidity in the atmosphere to get the water they need. We have more than 700 different species of pleurothallidinae orchids – one of the most important collections of its kind in Europe.

"Because they come from different climates and altitudes, some species have different requirements to others. So we have separate greenhouses which are heated to different temperatures – and have different variations between day and night. We grow some of them attached to a piece of cork bark, to replicate the conditions of those growing on trees. Basically they don't like to get too hot, and they mustn't dry out.

"The first 'gardener' at Chester Zoo, Albert Mottershead (father of the founder, George) was a keen orchid grower, and this has continued throughout most of the zoo's history. Several orchids used to be displayed in the tropical house, and there are still a few specimens there. If you look closely in some of the other buildings (such as Realm of the Red Ape) at certain times of the year, you will see orchids in flower; but the best place to see them in the zoo is in the specially designed orchid house in the Plant Project."

OPEN DAYS

We occasionally hold open days when visitors can go behind the scenes in the greenhouses, and see our entire collections of orchids, cacti and pitcher plants. The next one is planned for Wednesday 7 August.

Photo credit: Paul S Hughes

FINAL CALL FOR THE MONORAIL

This summer we say goodbye to a much-loved part of the zoo's recent history.

The monorail has transported millions of visitors around the zoo, including some high profile faces, from Peter Kay and Gary Barlow to Her Majesty, The Queen.

It has been part of the zoo for nearly three decades, but since its installation in 1991 the zoo has grown in size and now this transportation system doesn't cover even half of our 125 acres. Over the last few years we have experienced both system and train failures so this once state-of-the-art system is proving costly to maintain and unreliable for visitors.

Sadly therefore, after much consideration, we have come to the decision to decommission it at the end of the summer. As we continue to develop ever more animal habitats within immersive zones, themed by geographic regions and habitat type, the monorail no longer fits our vision for a world-class modern zoo.

Now is the time for a nostalgic look at the Zoofari Monorail...

In the early 90's we were looking for a service to transport visitors around the ever expanding zoo. We wanted something a bit different, so we chose a 'computerised people mover' or as we called it, a monorail. This was, at the time, an ultra modern system which gave visitors the opportunity to see the zoo from a whole new angle, often described as seeing the zoo from the same height as a giraffe. It took months to erect the one mile track, which connected the two halves of the zoo. It was opened by Her Royal Highness, Princess Margaret. Unfortunately, the carriage she was on stopped en route, making the monorail's maiden voyage a little stressful for the staff involved!

The monorail's latest update was in 2009, when music producer and train enthusiast Pete Waterman re-launched the service. Just a week later it made the national news again, but not for good reasons, as a power failure meant eight visitors had to be rescued by the fire service using a hydraulic lift!

By far the most prestigious guest to ride the monorail was Her Majesty, The Queen, who visited the zoo in 2012 to open the Diamond Jubilee Quarter. She made a one-off round trip riding through the Jubilee station in a specially designed carriage which had been re-skinned with the Union Jack flag.

If you would like to take a ride on our monorail before it is decommissioned then don't delay; we plan to operate the service through the next few months.



GRASSLANDS

We are proud to give you an advance look at our long-term plans for a very special new area in the zoo: Grasslands. This range of different African habitats, from bush land to wildlife rich plains, is planned to open to visitors in 2022.

This is the next major phase in our Strategic Development Plan (SDP), which sets out our vision for the zoo for the next 10-15 years.



Cathy Partington, Capital Development Director, tells us more:

"Grasslands will sit in the area between eastern black rhinos and Islands. It will incorporate spectacular new animal habitats and, potentially, overnight accommodation. It will include a variety of grassland habitats from bushland to desert. The centrepiece will be a large open African savannah: a mixed species habitat home to Rothschild's giraffes, Grevy's zebras, ostrich and roan antelopes. Bordering this will be the Tsavo experience with our eastern black rhino and African painted dogs. A new rift valley

will be home to vultures, aardvarks and warthogs. We also plan to convert the African Wetlands Aviary to accommodate African greater flamingo.

"Sitting at the heart of Grasslands will be a restaurant, arranged over two floors, with event space on the ground floor. It will provide spectacular views across the savannah. Our planning proposal also includes the option for us to develop overnight accommodation, which consists of 42 rooms, comprising sensitively designed lodges and tents overlooking a lake with views of a bachelor Rothschild's giraffe herd, as well as access into Islands, offering our guests a unique visitor experience.

"We hope to get planning permission in the summer with the aim to start the main construction works next year, with a proposed completion date of 2022. Creating Grasslands is a complex process, but in the long term the results should be incredible."



MOVING ON...

After 54 years at Chester Zoo, the flock of Chilean flamingos has left for pastures new. The 103 flamingos have gone to three different collections; Jersey Zoo, BirdWorld and Dierenpark Amersfoort and they have all settled well into their new homes.

The Chilean flamingos have moved on to allow us to create a new South American wetland aviary. This aviary, which will be situated on the site of our current Flamingo Lagoon, will be home to our flock of Caribbean flamingos and a number of other spectacular South American wetland bird species. Caribbean flamingos are the largest of the world's five flamingo species and this new aviary will allow us to better showcase this beautiful species. The aviary is in the first stages of design and we aim to start this exciting project at the end of the year.

NEW TO THE ZOO- CROWNED LEMUR

Four crowned lemurs have recently moved from Montpellier Zoological Park. This species originates from the forests of northern Madagascar and are named after the crown-like fur on their heads. They have large round ears which are able to pick up group calls and detect approaching predators, long tails for balance and strong hind legs for leaping long distances between trees.

The crowned lemur, endemic to Madagascar, is listed as endangered on the International Union for Conservation of Nature (IUCN) Red List. Madagascan lemurs are the planet's highest primate conservation priority, as habitat loss in the wild pushes multiple species to the brink of extinction. We hope that these lemurs will provide a vital insurance population for the species.

Look out for two female crowned lemurs called Ilo and Pia and two males called Rack and Hajao on your next visit.



THE LANTERNS

AT **CHESTERZOO**

This Christmas, something magical is happening at Chester Zoo as our enchanting festive event, The Lanterns, returns. Join us as we transform the zoo into a spectacular wonderland, full of sparkle, illumination and a sprinkling of snow!

You'll set off on The Great Christmas Expedition to discover exotic illuminated wildlife and animal characters in nine fantastical worlds. Journey through Moonlit Meadow, Cloud Cuckoo Land, Tropical Dreams, Enchanted Woodland and Night Sky Adventure!

Together with our favourite animal lanterns from Christmases gone by, The Lanterns will fill you with Christmas cheer and plenty of precious memories, as well as delicious festive food. And remember to keep an eye out for Father Christmas... he could be just around the corner.

Find out more and book now at CHESTERZOO.ORG/LANTERNS

TICKETS

Child tickets from £6

Adult tickets from £11

Children aged 2 and under enter free of charge

Selected dates from
Fri 22 November to
Mon 23 December
2019

AIRBUS CONTINUE THEIR COMMITMENT TO CONSERVATION

For over a decade, our partnership with Airbus has allowed us to further our mission to prevent extinction, and we're thrilled that we've just signed up to work together for the next three years.

Providing funding for our conservation work in the field with eastern black rhinos, Airbus enable our project partners to fuel a plane in Mkomazi National Park used by rangers as they patrol for poachers. They also support bird conservation right here at the zoo, allowing our expert team to continue their breeding projects.

We recently welcomed a team of Airbus staff who helped us to provide fresh food for our giraffes during the cold winter months – thank you!

If you'd like to find out more about how companies can work with us to prevent extinction, you can get in touch with Rose via r.gelder@chesterzoo.org



WHAT'S NEW IN THE SHOP?

PREDASTORE

Make sure you don't miss our new pop up store and activity area, the Predastore. We're open every day during Predators, so you'll find prehistoric products for all ages, from t-rex toys to wolf lounge wear!

We also have a fossil dig, where you can try and find a fossil or two! Our local palaeontologist has already had a dig around and found dinosaur bones and shark teeth!



PLUSH TOYS

For all of you who collect our plush toys, we've added a couple of new ones to our glitter eyes range – We now have a cuddly otter and an aardvark. We're also bringing in some predators too – so make sure you pop into the shops and check them out!



- Glitter eyes toys £9.99
- Kids loungewear £21.99



Chester Zoo special events

NEW for 2019, we're running a series of special events. With exclusive, after-hours access to the zoo and rare experiences, these events are the perfect excuse to leave the kids at home and grab a drink in the most unique venue in Chester.

Keep an eye on our website for upcoming events – chesterzoo.org/lates

MEMORY CAFÉ

Join us at the Chester Zoo Memory Café - a place for people with dementia, their families, friends and carers to come together and enjoy a cuppa in the unique setting of the zoo. The café takes place in Bembe Coffee Shop at the main entrance, which is FREE to access and has plenty of FREE parking too.

The Chester Zoo Memory Café takes place on the second and

fourth Monday of the month* from 10.30am until 12pm. Check our website for details!

Our friendly staff and volunteers will be at the café to have a chat and share the latest news from the zoo. Refreshments are available to purchase too.

*The café does not run on bank holidays

Talking Conservation

Summer 2019
Programme

If you'd like to find out more about how your membership helps fund vital conservation work, then book onto one of our brilliant membership talks.



Thursday 4 July

PANGZILLA 2; THE SECRET LIVES OF GIANT PANGOLINS **STUART NIXON AND NAOMI MATTHEWS**

In this talk Stuart Nixon, Africa Field Programme Coordinator, and Naomi Matthews, Chester Zoo's Giant Pangolin Project Researcher, will provide a "sequel" to Stuart's 2018 "Pangzilla" talk, updating us on their pioneering study of one of the rarest and most threatened of all Africa's mammals - the giant ground pangolin.

Since June 2018, the project has carried out a series of intensive explorations throughout forests and grasslands of western Uganda searching for this elusive nocturnal animal. Using hi-tech, remote sensor trail cameras the project is now documenting the secret life of giant pangolins for the very first time, providing ground breaking insights which are urgently needed to help conserve this incredible and mysterious species.

Come along and learn more about what Chester Zoo is doing to save Pangzilla, the heavyweights of the world's scaly anteaters!

MEMBERS' TALKS

All of our members' talks are held in the Lecture Theatre, near the zoo's main entrance off the A41, and start at 7.30pm.

- Our talks are often fully booked so booking is essential
- They're free to members (please bring your membership card and welcome letter)
- We offer a special rate of £2 to adopters
- Members of the public and guests are welcome (£3.50 for non-members)
- Post-talk refreshments give you the opportunity to have an informal chat with speakers, zoo staff and fellow members.

Interested in attending?

Please call Kate Brankin in the Discovery and Learning team on 01244 389831 or email k.brankin@chesterzoo.org



Thursday 19 September

FEEDING CHESTER ZOO'S 27,000 ANIMALS: HOW HARD CAN IT BE? - CHRIS GEE, ANIMAL SUPPLIES DEPARTMENT MANAGER

The zoo's Animal Supplies team source, grow and deliver everything that the diverse species at the zoo need every day. Why do we source the products we do? What are the challenges of trying to match the species' natural diets? How are we planting our future food?

In this talk, Chris will discuss everything from fruit for the primates to the meat for the carnivores, as well as everything else in between, giving you an insight into how we source and store the feed for over 27,000 animals across the zoo site.



Wednesday 2 October

**A KEEPER'S LIFE AND OTHER STORIES
NIALL ORMEROD, STUART NIXON AND OUR PRIMATE TEAM**

Join us to say farewell to our primates Lead Keeper, Niall as he looks back over 47 years at the zoo working with our chimpanzees. Africa Field Programme Coordinator, Stuart Nixon will also be bringing you up to date with our chimp fieldwork in Gabon and we'll have a review and update with other members of the zoo's Primate team.

This is an evening of celebration and we'll be holding a raffle and an auction of some wonderful donated artwork by local artist, Wendy Youlton. All proceeds will go to the chimpanzee protection project in Gabon.



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Our Chester Zoo Z magazine has been produced using vegetable based printing inks and is printed on sustainable FSC resourced uncoated paper. The outer packaging and magazine are also fully recyclable