

AUTUMN 2013

Z MAGAZINE

CHESTER ZOO

*The official magazine for
Chester Zoo MEMBERS
and ADOPTERS*

Spotted!

IN YOUR Z...

Features

- 4 **Little big cats have a health check**
Tiger cubs make their public debut
- 10 **From off show to show offs!**
Meet our playful cheetah cubs
- 21 **Lantern Magic**
Looking ahead to the return of our illuminating Christmas festival
- 24 **Bugs Life!**
Insects as you've never seen them before

Regulars

- 3 **Five minutes with...**
Dr Mark Pilgrim
- 18 **Making a difference**
How we have been acting for wildlife all around the world
- 20 **Staff go wild**
Out and about for conservation
- 22 **Fundraising**
- 23 **Zoo Talk**

DON'T MISS!

Adopter Days
Sunday 6 October 2013
Saturday 8 March 2014

Members' Days
Sunday 3 November 2013
Saturday 29 March 2014



CHESTERZOO

Chester Zoo, Upton-by-Chester Chester, CH2 1LH
Tel. 01244 380 280 Fax. 01244 371 273
Email: info@chesterzoo.org Web: www.chesterzoo.org
Director General: Dr. Mark Pilgrim
Editor: Rachael A. Wheatley
Z is published by: North of England Zoological Society,
Upton-by-Chester, Chester CH2 1LH
Registered charity No. 306077

ARE YOU A FRIEND OF THE ENVIRONMENT?

As part of our commitment to the environment, we're giving you the chance to receive Z electronically.

Swapping over is easy.

Simply contact the membership office on **01244 650 208** or email membership@chesterzoo.org with an email address you would like us to send the link to – but don't forget to include your membership number or postcode so we can find you on our system. You'll still receive Z by post should you not wish to receive it electronically.

What is the latest animal news?

It seems that not an edition of *Z* goes by without a host of major births as our breeding programmes go from strength-to-strength.

Since the summer issue we've had two northern cheetah cubs born to mum *KT*. It's her second litter and subsequently the second time ever that we've successfully bred cheetahs here. This time is arguably even more special than the first as it shows we can repeat what is a really challenging feat. Our Sumatran tiger *Kirana* also provided us with more big cat success, giving birth to cubs.

We've seen the arrival of *Embu* – a remarkable third Eastern black rhino in just 10 months – as well as the first spiny turtle to ever be born in the UK and an impressive 17 critically endangered Baer's pochard ducklings.

On a personal level, the birth of our greater one-horned rhino – the first ever to be born at the zoo – is a particularly special one as it was always my favourite animal when I was growing up.

You can read about all of these arrivals and more from pages four to 10.

What's happening in the zoo?

Our new exhibition of super-sized animatronic invertebrates – *BUGS!* – is now open and it really has come together wonderfully well with each of the creations set amongst some stunning theming and planting. It's fun and offers something a little bit different to our visitors but what we really want it to do is to put invertebrates in the spotlight, show how fantastic they are and raise awareness of the need to conserve them.

It's not just iconic species such as Eastern black rhino and Asian elephants that we're focussed on conserving. Our work with invertebrates, like our critically endangered Polynesian tree snails or rare British fen-raft spiders, is just as important to us.

Engaging people, particularly youngsters, with conservation sometimes takes some drastic ideas and new ways of thinking and that's precisely what we hope our 13 giant bugs will do.

Elsewhere we have just opened two new bird support facilities, situated between our red panda exhibit and our Parrot Breeding Centre, which will be a valuable asset to our bird teams.

The first is called the Wetland Bird Nursery which is being used for rearing a number of wetland birds including geese, cranes, storks and spoonbills. To the rear of the banteng enclosure we have also built our Small Parrot Breeding aviaries. You can find out more about the facilities on the coming pages.

NEWS FROM THE ZOO

What has been going on conservation-wise?

The skills and expertise of our staff are known throughout the world and we were very excited to be asked by the government of Bermuda to get involved in a unique project to help save one of the rarest lizards on the planet – the Bermuda skink.

Our curator Gerardo Garcia and keeper Ruth Smith recently went to Bermuda and brought back 12 skinks, making us the only place in the world that holds these special creatures outside of their homeland.

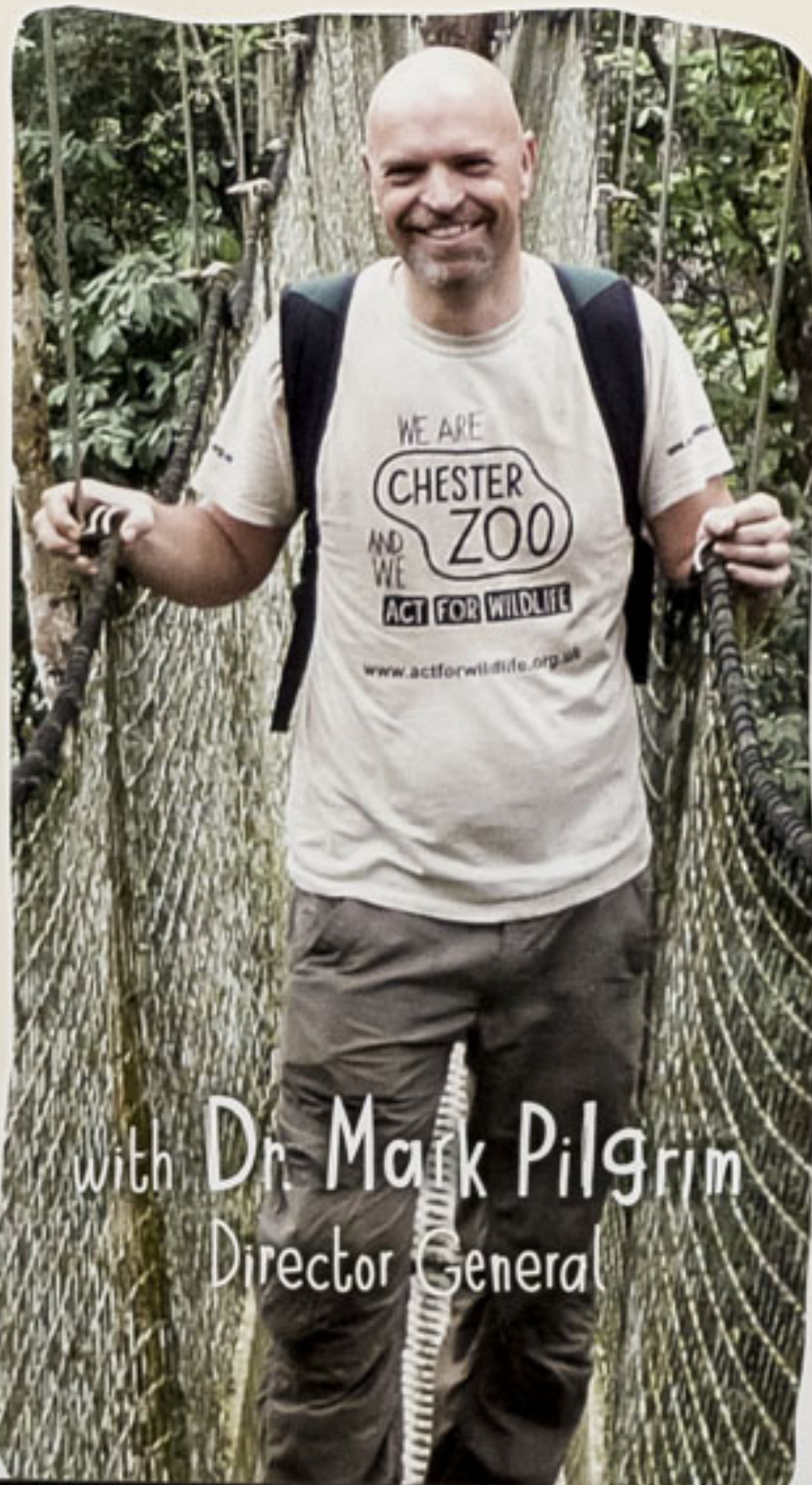
Our team is now beginning to put together a complete guide on how to rear them in an artificial set-up – there's much more on this on page eight.

In July we brought together some very important minds when it comes to conservation in Mauritius, playing host to a globally important, three-day-long conservation meeting aimed at tackling a range of concerns in that part of the world and we also took in eight large heath butterflies – one of the UK's rarest species – as part of a new captive-rear and release programme. We already have lots of eggs and numerous caterpillars which have been moved on to food plants we're growing in our greenhouses.

And of course it's not just animal conservation we're involved in. We've sent cuttings from one of our critically endangered pitcher plants, *Nepenthes Kampotiana*, over to Thailand to help kick-start a project looking to re-introduce them back to the wild.

And finally...

I'd very much like to take this opportunity to welcome our new managing director, Jamie Christon, who took up his post in July. Jamie has a wealth of experience in all aspects of guest services in large and diverse organisations and I'm sure he'll bring some fresh and exciting ideas with him and be a great addition to the zoo.



Little BIG CATS

have health check-ups

Two rare Sumatran tiger cubs have had their first ever health check-ups.

The new arrivals were checked by our specialist vets and carnivore keepers who determined their sexes, administered vaccinations and weighed them.

Curator of mammals, Tim Rowlands, said:

"They basically receive the same vaccines that a pet cat is given at the vets.

"The difference is we're much more cautious about handling the cubs than we would be with domestic kittens!

"We worked in teams to complete the checks quickly, before returning them to their mum, Kirana, as soon as possible. She is a very good mother, a second time mum who also had two cubs in 2011.

"Kirana is fiercely protective of her young charges, so we certainly didn't want to hang around long."

Each cub received a full physical examination which revealed the tigers are both female.

Mr Rowlands added:

"Sumatran tigers are among the rarest big cat species in the world and so these are very, very special cubs indeed. We needed to make sure they are healthy and in good body condition and happily they were given a completely clean bill of health."

The cubs were born on 2 June, having been fathered by our male tiger, Fabi.

Their arrival is a big success for us and good news for the future of the species.

They will now become part of a European-wide breeding programme, providing an important safety-net in the event that wild populations become extinct.

The new tiger cubs are given their first full health check by our vets.



Male Eastern black rhino calf *Embu* was born to mum *Zuri* in June – our third baby in the space of just 10 months!

Embu's arrival comes hot on the heels of *Chanua* who was born to mum *Emma Elsa* in October 2012 and *Dakima* who was born to mum *Malindi* in March this year.

As well as being blessed with very good animals, very talented and knowledgeable keeping staff and great breeding facilities, our rhino baby boom is also attributed to some ground-breaking science.

Our research team has spent the last five years carefully monitoring the hormone levels of our resident female rhinos in a bid to discover the best time to introduce them to a potential partner.

The three arrivals are further steps towards sustaining a black rhino population which, in the wild, has been devastated by poachers.

There are thought to be less than 650 Eastern black rhinos remaining in Africa, placing the species perilously close to extinction.

Embu, *Chanua* and *Dakima* will all eventually join the international breeding programme, which has already seen some black rhinos returned to Africa to help boost numbers.

EMBU

makes it three!





TURTLE BREAKTHROUGH



A rare baby spiny turtle – the first ever to be bred in the UK – has hatched.

Spiny turtles, which are native to South East Asia and Indonesia, are faced with extinction in the wild because of habitat loss, hunting and the international pet trade.

But the new arrival has given conservationists fresh hope in the fight to haul the species back from the brink.

"There have only ever been a handful of successful breeding efforts documented, anywhere in the world, so we're absolutely ecstatic with our new arrival – it's breaking new ground for us," said keeper Ruth Smith.

"Breeding these rare turtles here allows us to study and learn about their reproductive ecology and what makes these beautiful, yet complex, animals tick. And it's that kind of information which can be invaluable for conservation action in the wild."

"The intensive care and delicate work we've put into getting this turtle to hatch and all the information, skills and things that we've learned in doing so are vital tools we can now apply in the field. We'll now share this expertise and really maximise our chances of being able to better protect and help the recovery of this and other similar species in the wild."

The youngster's parents were rescued and given to us after an illegal haul was confiscated by wildlife authorities in Hong Kong in late 2000.

Keeper Isolde McGeorge said:

"I arranged for the turtles to come to us in early 2001. They were all very, very sick and, at the time, we were really worried we were going to lose them."

"Twelve years later, to have now reached this momentous point where we've actually managed to breed them is incredibly satisfying and one of the greatest success stories of my time working here. The challenge now though is to replicate this and help to make sure the future of the species is better safeguarded."

The diminutive spiny turtle (Latin name *Heosemys spinosa*), which grows to no more than 22cm (220mm) in length, is classed as endangered on the International Union for the Conservation of Nature's (IUCN) Red List of the world's most threatened species.

Their natural range is through southern Burma, southern Thailand, Malaysia, Sumatra, Borneo, several Indonesian islands and the Philippines. They live in swamps and wet forests.

But human activity is weakening the species' grip in the wild.

And prior to the new spiny turtle hatching in Chester, only a handful of successful captive breeding efforts have ever been recorded worldwide.

For those reasons, the new baby is being given very special care.

Miss Smith added:

"When a species is as endangered as the spiny turtle, each individual is so, so important. We're giving our little fellow around the clock attention as everything we're learning could be crucial if we're going to try to prevent their slide towards extinction."

Save our Skinks

Chester Zoo comes to aid of Bermuda icon

One of the world's rarest lizards has been brought to the UK from its native Bermuda so our experts can work out how to save it.

The numbers of Bermuda skink (*Plestiodon longirostris*) – also known as the rock lizard – are dwindling in Bermuda with ecologists fearing a single disaster could wipe out already fragile populations.

A team from the zoo brought back 12 skinks from the island and will now begin putting together a complete guide on how to rear the rare creatures in captivity. Conservation teams in Bermuda can then use skills learned here in Chester to breed skinks in their natural homeland and release them back into the wild.

Curator of lower vertebrates and invertebrates, Dr Gerardo Garcia, said:

"The number of these wonderful creatures in Bermuda is dropping drastically due to habitat loss and fragmentation of their populations. The introduction of species such as cats and lizard-eating birds coupled with development of Bermuda's landscapes has not helped.

"There are just a few skinks in captivity and all are on Bermuda itself, so we need to take action to protect them in the future. Using our expertise we're going to develop a toolkit for raising skinks with the hope that one day they can be released back into the wild."

Dr Garcia and his team will recreate the climate of Bermuda here at the zoo using temperature data taken from the islands together with other elements of the lizards' Bermudian surroundings, such as rock, coral and forest substrates, to create the optimal breeding conditions.

"This is one of the rarest lizards in the world and people may ask why we're going to such lengths to save it," said Dr Garcia, "but every species on the planet has an important role to play. What we don't want to do is leave it until it's too late to discover what the role of that species is and that's why we're acting now to save the skinks."

The zoo's veterinary experts will also be on hand to discover more about the skinks' biology, carrying out ultrasounds in an effort to understand them better. Microchipping techniques will be used so, ultimately, conservationists will be able to track skinks in the wild to determine how long they live and how far they travel.

How long it will take to develop the toolkit will depend on the skinks themselves. It may be another year before the six pairs at the zoo successfully breed and before the complete guide is ready. The results will then be shared with Bermuda's Department of Conservation Services and its support charity the Bermuda Zoological Society, the organisations collaborating with us on this project.

"We are very grateful to Chester Zoo and Dr Garcia for volunteering expertise and assistance with this project," said Mark Outerbridge, wildlife ecologist for Bermuda's Department of Conservation Services. "The skink is an iconic species for Bermuda and I am thrilled to have the opportunity to be a part of this team."



Dr Garcia and Chester Zoo keeper Ruth Smith examine one of the rare skinks.

Dr Garcia and keeper Ruth Smith, with a colleague searching for skinks on Southampton Island, Bermuda.

SKINK facts

- The species has been listed by the Species Survival Commission of the International Union for the Conservation of Nature and Natural Resources (IUCN) as critically endangered and is protected under Bermuda law
- Bermuda skinks can grow up to 15-20cms in length
- They are often found on beaches and sand dunes and are most active until midday
- Skinks reach maturity at between two and four years but can live 15-20 years
- Skinks are said to be very fond of cheese!





- There are 3,000 Indian rhinos left in the wild, 2,000 of which can be found in Assam
- Indian rhinos are classed as vulnerable to extinction
- Calves are born without their horn
- The Indian rhino is the second largest living rhino species, the white rhino is the largest
- The father of the new calf is Beni

FIRST *for Chester*

There was a surprise in store for our keepers with the appearance of a very special new arrival.

The zoo has welcomed three black rhino calves in less than a year. Now greater one-horned rhino *Asha* has matched them and welcomed her very first calf into the world.

It's the first time a greater one-horned rhino, or Indian rhino as they are also known, has been born at the zoo and the female calf has certainly raised a smile amongst the keepers.

Curator of mammals, Tim Rowlands, said:

"Our rhino keeping team, and indeed the rhinos themselves, have had the most fantastic few months with three black rhino calves arriving but clearly our Indian rhinos weren't about to be out done!

"Although we had an inkling that our Indian rhino, *Asha*, was pregnant, it was just that, an inkling and a hunch that comes with experienced keepers.

"So, it was a rather marvellous surprise to come in and find that *Asha* had a big bundle of joy of her own."

"*Asha's* calf hasn't got a name yet but she's a proper little bruiser; she has that fabulous, slightly wrinkled armoured plating look that comes with Indian rhinos. This is a breeding first for us but also a bonus for the population of Indian rhinos which are yet another rhino species being put at risk as they are cruelly and brutally poached for their horn," added Tim.

From off-show to SHOW OFFS!

A REAL HANDFUL FOR MUM

These adorable bundles of fluff were pictured, aged just eight weeks, on making their first public appearance in August.

The two rare northern cheetah cubs were born to mother, KT, aged six. It is her second litter having given birth to cubs in June 2011. They were fathered by our six-year-old male, Matrah.

The tiny duo and mum had been in a special off-show area for a few weeks when they were first born. They were introduced to the world after having a general health check, which revealed they are male and female.

Now the youngsters are beginning to develop their own personalities, climbing on tree stumps and bouncing around after one another.

Team manager of carnivores, Dave Hall, said:

"They're very, very playful and a real handful for mum. But she's exceptionally good with them and doing a great job of bringing them up."

Over the last 100 years the wild population has plunged by 90% and it is feared there may be as few as 250 northern cheetahs left.

The arrival of the two cubs is therefore not only a cause for celebration in Chester but also the International Endangered Species Breeding Programme working to save the species from extinction.

Our breeding facility has been set up to replicate how adult cheetahs would find a mate in the wild.

Mr Hall added:

"Northern cheetahs exist only in a handful of zoos in Europe and, having bred them for the very first time here in 2011 we have now managed to repeat that breeding success which is even more of an accomplishment.

"Cheetahs may be the fastest animals on land but they're struggling to outpace the threats to their survival in the wild. They have fallen prey to hunting, human conflict and habitat loss in their native Africa. Sadly, they are now vulnerable to extinction.

"The fact we now know how to breed them at least gives us hope that we can maintain a healthy, viable population in zoos.

We support the *N/a'an ku s'e Carnivore Research Project* which is based in Namibia, where the dwindling cheetah population is monitored and tagged.



Our new cheetah cubs pictured out and about with their mum KT after having their first health check.



QUICK FACT We helped develop a technique to identify cheetahs in the wild from their paw prints. The footprint identification technique (FIT) uses digital images of their footprints to build a databank allowing the cats to be identified in a non-intrusive way.

Ducks' nursery pool!

Two new support facilities, which will be a valuable asset to our bird teams, have now opened.

The first is called the Wetland Bird Nursery which is being used for rearing a number of wetland birds including geese, cranes, storks and spoonbills. Situated between our red panda exhibit and our Parrot Breeding Centre, part of the nursery is on-show and if you've visited recently you may have already seen red-breasted geese rearing their goslings.

Behind the scenes are eight aviaries designed specifically for rearing ducks. Four are for dabbling ducks and another four deep tanks are specifically for diving ducks. It's here that some of our most precious species, such as the critically endangered Baer's pochard and white-headed ducks, are being reared.

To the rear of our banteng enclosure we have also built our Small Parrot Breeding aviaries, a series of 14 aviaries specifically designed for breeding our smaller parrots, such as grey-breasted conures and a number of lorikeet species.

Both of these new facilities will allow the bird and parrot teams to further develop their specialist husbandry and rearing skills with some of the most endangered species we have at the zoo.



Team manager Andrew Woolham checks on six, three-week-old ducklings in a deep water tank inside a new purpose-built breeding facility at the zoo. The four Baer's pochard and two white-headed duck youngsters, both critically endangered species in the wild, are just some of the many new arrivals to have thrived since the rearing centre opened.



A female red-gilled pin-tail looks after her young in one of the specially designed aviaries for dabbling ducks.





An artist's impression of how Islands will look, including the exciting attraction of a river boat journey, left.

Construction work starts on **ISLANDS**

Following a rigorous tendering process, we have now placed a contract with Laing O'Rourke, an experienced and well-regarded construction company, to deliver the first major package of the £30m *Islands* project – the largest development in our history.

Work started last month, with this main phase of construction due to finish in August 2014. It will include all the civil engineering, earth-moving and construction of the shell and core of the Indonesian Jungle House. Work on the second package, which includes stables and enclosures, is scheduled to begin in July 2014, with a third phase of activity seeing the final planting and theming of the zone.

The scheme is planned to include several months at the end of the construction and planting for plants to acclimatise and to allow the movement of animal species into their final homes. This will be followed by testing of all equipment and training of staff to be ready for the projected opening day in spring 2015.

To start things off, a 'meet the contractor' session was arranged in August to offer local residents and members an opportunity to ask any questions about *Islands*. Both our own management and Laing's are very keen to engage with our neighbours, including local schools and interest groups, to keep them fully apprised of developments as the scheme progresses. The building programme will provide jobs and training for people living in Chester area and

is expected to deliver massive benefits for the local and regional economy, attracting an additional 150,000 visitors here each year after the opening.

During early stages of this development, work was undertaken to improve several ponds and their surrounding habitats to act as receptor sites for the very large population of great crested newts and other amphibians carefully collected over 60 days of licenced trapping and relocation. This species of newt is protected under UK and European law owing to declining population levels, so the site they now occupy is an important reserve that will be protected for the future.

As well as providing large and natural environments for our animals, *Islands* will create a feeling of being immersed in an exotic habitat, like an explorer, encountering field stations, release sites and native villages during an expedition through Bali, Sumatra and the other islands. There will also be a river boat ride that will give different views of the exhibits.

We will be providing updates as the project develops and you can also visit the dedicated Islands page on our website at www.chesterzoo.org/islands with links to information on our conservation programmes in South East Asia. We also intend to install a webcam to monitor progress of the construction works from the start of the project through to its opening in 2015.



GO ORANGE FOR RANGUTANS

MAKE THIS OCTOBER A GREAT MONTH FOR THE SURVIVAL OF ORANGUTANS

Your school, club or company can help! Join Chester Zoo as we Act for Wildlife to raise vital funds to save the orangutan.

Pick a day in October to 'Go Orange' and donate £1 to save the orangutans.

Did you know? Orangutans are the only apes that spend almost their entire lives in the canopy of the rainforest.

And yet their homes in Sumatra and Borneo are being destroyed at a rate of ELEVEN FOOTBALL PITCHES A MINUTE. These magnificent creatures could be EXTINCT within our lifetime.

Taking part is easy. Register now at www.actforwildlife.org.uk/orange and download your fun, free fundraising pack.

100% of money raised goes to funding the organisations working on the front line of orangutan conservation.



Visit www.actforwildlife.org.uk/orange or call 01244 650 229.

Registered charity number 306077.



WE ARE
CHESTER ZOO
AND WE **ACT FOR WILDLIFE**

PRIZE
TO BE WON!
with our
QUIZ

Kidz ZOO

Autumn 2013



Inside...KIDS' PROGRAMME OF EVENTS

ns.



0

LIFE



Junior Members' PROGRAMME of EVENTS

TRENTHAM MONKEY FOREST, STAFFORDSHIRE

SATURDAY 21 SEPTEMBER 2013

You will love this visit which offers the chance to walk amongst free-roaming barbary macaques at Trentham Gardens. There are around 150 macaques there and you will be able to watch their natural behaviour with no cage barriers. The forest offers a safe place for the monkeys to live and provides areas of space for them to develop and live in freedom.

The bus will leave the staff car park at 10am and return at 5pm. Eights and over are invited to join us for a relaxing day. Bring a picnic.



BLACKPOOL ZOO

SATURDAY 19 OCTOBER 2013

It is a few years since the juniors last visited Blackpool Zoo but it is always great to visit other zoos and to see how they do things. We plan to have a guided walk so that we do not miss any of the highlights and juniors should have an excellent day.

Over eights are invited to come along and enjoy the day. We will leave the staff car park at 9.30am and return there for 5.15pm. You will need a picnic lunch.



BURTON MERE WETLANDS – THE RSPB RESERVE ON THE DEE ESTUARY

SATURDAY 16 NOVEMBER 2013

Burton Mere Wetlands is a magnificent mosaic of wetlands and beautiful woodlands and is perfect if you are new to birdwatching, as the entire reserve has been designed to get you closer to nature. Vast panoramas and a fascinating history are just some of the highlights from Burton Mere Wetlands. Straddling the border between England and Wales, this is a unique landscape. Many years of hard work have restored reedbeds, fenland and farmland.

This is a relatively new reserve to the RSPB and we felt we would love to go along to take a closer look. Many scarce migrant birds have been seen in previous years including little stints, green curlew and wood sandpipers. Little egret numbers are at their highest in October/November as the chicks have fledged and large roosts have built up. Also, small numbers of wild geese begin to arrive. We will have a guided walk which should be excellent!

The bus will leave the staff car park at 11am and return for 4pm. You will need to dress warmly and bring a picnic lunch. If you have binoculars bring them along, but we will have some you can borrow too. Juniors of eight and over are more than welcome to join us.



THE JUNIORS' CHRISTMAS PARTY

FRIDAY 6 DECEMBER 2013

Our annual 'bash' welcomes juniors of eight and over to enjoy an evening of games, disco music, and a great hot-dog and beefburger supper. You will need to bring along a cushion to sit on and a torch to find us!

The venue will be Café Bembe. Access can be gained through the main entrance. You should arrive at 7pm, with your cushion and a torch, and we will guide you to the venue. Parents should arrange to collect you from the main entrance at 9.45pm.



Please Note:

Bookings must be made for all events. Please ring Penny Rudd on 01244 650 215, not more than two weeks before the event you would like to attend. Places are offered on a first-come, first-served basis and may be limited. This list is provisional and in exceptional circumstances we may have to alter dates and venues. You will be informed of any such changes in Z Magazine and not by individual letter, so please keep up to date by reading the Kidz Zoo pages in each issue. A charge will be made to cover the cost of those events which involve transport, entry fees, materials or the provision of food and you will be advised of this at the time of booking.

ORANGUTAN QUIZ



- 1 Orangutans are one of the great apes.
On which continent are the other great apes found?

- 2 Orangutans are found in Asia. Do you know which other primates, known as 'lesser apes' also live in Asia?

- 3 The two types of orangutan are named after the islands in South East Asia where they originate, and both types can be found at Chester Zoo. One is the Bornean orangutan, can you name the other?

- 4 The name orangutan comes from their similarity to humans, and the habitat they live in. What does the name orangutan mean?

- 5 What are the two main ways that you can tell an adult male orangutan from a female?

- 6 Orangutans spend most of their lives in the treetops looking for food. Do you know the name for this behaviour, an anagram of BOLRAEA?

- 7 Can you name an extremely rare animal that lives in the same area as Sumatran orangutans? It has better known relatives in Africa.

- 8 What are the two main threats to wild orangutans, that conservation groups are working hard to counter?

To be in with a chance to win a £10 voucher to spend in the zoo shops, send your entry together with your name, address and phone number by **Tuesday 1 October** to:
Z Magazine, Marketing Department, Chester Zoo, Upton-by-Chester, Chester CH2 1LH
Congratulations to our previous winner James Pattison of Chester.

NEW at CHESTER ZOO

JUNGLE PARTY DEN

If your little monkey deserves a wild time this birthday they we've got a treat in store.

Our Jungle Party Den is a new venue for special occasions.

Create the perfect party from a choice of packages and added extras then sit back and enjoy the special day.

Just visit www.chesterzoo.org for details.

You can book the Jungle Party Den from:

10.30am until noon OR 1.30pm until 3.30pm

And here is the best bit.....we'll clean up the mess at the end!

Our great package includes:

- Zoo admission for 12 people
- Hire of the Jungle Party Den
- Jungle box of party food for each person
- Elephant birthday cake
- Face painter
- Monorail and waterbus ride for each person
- Deluxe goody bag

To book your own party or for helpful advice call the friendly events team on 01244 650 209.



The Jungle Party Den is sponsored by The Firs School, Chester
www.firsschool.net - Independent education for boys and girls aged 3-11



Enjoy member discount on child's admission into FUNKY TOWN!

Funky Town is an amazing indoor adventure play and party centre based right in the heart of Chester. Funky Town is the place where children can run, play, and slide on a huge climbing frame filled with ball pits, slides, roller squeezes, rope bridges, and toddler, disco and sensory zones, plus so much more!

Offer details: One 50p discount on child's admission into Funky Town. (Membership card must be shown and one discount applies per card shown)

Excludes school holidays and weekends and does not apply to babies under 1 year. Offer ends 31 December 2013.

NOT JUST FOR EARLY BIRDS

All stores open until 8pm weekdays

LIV

LIZ

With over 160 stores, bars and restaurants, Liverpool ONE is a fabulous shopping destination in the heart of Liverpool city centre.

liverpool-one.com | @Liverpool_ONE

WHERE STYLE COMES TO LIFE

1
LIVERPOOL ONE



CONSERVING THE 'BIG FOUR'

Hear the latest from orangutan, rhino, elephant and tiger specialists

SATURDAY 14 SEPTEMBER

10:30am - 5pm (doors open at 10am) at Chester Zoo's Geraldine Russel-Allen Lecture Hall

Join us for a day of talks* about these four popular but threatened animals and hear about the frontline conservation work being carried out around the world to protect them.

ORANGUTAN CONSERVATION PLENARY SPEAKERS

Dr Marc Ancrenaz, co-director of Hutan-Kinabatangan Orangutan Conservation Programme (KOCP)

Prof Serge Wich, professor in primate biology, Liverpool John Moores University

Dr Ian Singleton, director of conservation, PanEco-Sumatran Orangutan Conservation Programme (SOCP)

CHESTER ZOO FUNDED POST GRADUATE RESEARCHERS

Katie Edwards, Chester Zoo black rhino reproductive hormone research, with Chester Zoo rhino keeper **Helen Massey**

Dr Chloe Inskip, Human-tiger conflict in Bangladesh

Ben Buckley, Dispersal and ranging behaviour of male orangutans in Indonesia

Lizzie Webber, African and Asian elephant calf development

HEAR ABOUT CHESTER ZOO'S CURRENT ORANGUTAN ACTIVITIES AND HOW YOU CAN GET INVOLVED

Talks will be aimed at a general audience and this event is a real 'must' for anyone interested in wildlife conservation!

BOOK NOW by visiting our online shop www.chesterzoo.org/symposium

This fundraising event is open to Chester Zoo members and non-members. Tickets** are **£18.50** for Chester Zoo members, students, concessions, and EAZA members, and **£24** for others. **Due to the popularity of this event advanced booking is required.**

In support of



with all funds raised going towards Chester Zoo's EAZA Campaign 2013.



Please check the Chester Zoo website for any updates.

If you have any questions about this event please email conservation@chesterzoo.org

*Please note: the programme may change due to unforeseen circumstances ** Ticket price also includes tea/coffee/biscuits at refreshment breaks in the lecture hall. Free entry into the zoo at lunch time is included - lunch is not provided but please do visit the zoo's cafes and restaurants, where you'll find a great selection of food and drinks available for to buy. There are also picnic facilities available in the zoo.

REALM OF THE RED APE

helping orangutans and their neighbours

If you're a regular visitor to Chester Zoo, you'll know that we have two species of orangutan – Bornean and Sumatran – both of which can be seen in our Realm of the Red Ape exhibit. These two species of 'red ape' are both threatened with extinction and are found only on the islands of Borneo and Sumatra in South East Asia. But did you know that we have a Realm of the Red Ape Conservation Programme, working with project partners to protect wild orangutans? Or that we also support projects in Borneo and Sumatra focused on other species which share their habitat with orangutans? Assistant conservation officer Cat Barton reports...

Conservation on SUMATRA

The main current threat to all species in Sumatra is large scale habitat loss. However, at the same time as this forest loss is occurring, there are promising reforestation efforts going on to increase available habitat for orangutans.

An exciting development has been the initiation of a new project by one of our partners from Liverpool John Moores University. The study is investigating the importance of reforestation for orangutan conservation using ground surveys and innovative equipment called conservation drones; unmanned aerial vehicles for surveying and mapping forests and biodiversity. Our support for the Sumatran Orangutan Conservation programme (SOCP) initially began with conservation education work and this has been growing for a number of years, with the most recent project being focussed around the Batang Toru forest block in northern Sumatra. The project focusses on producing resources for schools close to the forest edges in Central Tapanuli where most encroachment into the forest has occurred (find out more in our Staff Go Wild section on page 20). Just last year we increased our support through a new project which is collecting baseline data on the primate populations of Jantho Nature Reserve, Aceh. The data collected in this study will be vital in assessing the impact of orangutan reintroductions into the reserve and will be crucial to future environmental management strategies.

It's not just orangutans on Sumatra though; we have provided funding towards both the *ex-situ* and *in-situ* project elements of the Sumatran Rhino Conservation and Breeding Project. Last year, the sanctuary was celebrating an exciting birth of the first Sumatran rhino at the rhino breeding facility in Way Kambas, Sumatra – this was a huge boost to a species where the entire global population is estimated at less than 200 individuals.



Sumatran Orangutan Fast Facts

Species:	Sumatran orangutan (<i>Pongo abelii</i>)
IUCN red list status:	Critically endangered
Population:	Less than 7,000
Range:	Endemic to the island of Sumatra, Indonesia



Conservation on **BORNEO**

In Malaysian Borneo, the floodplain of the Kinabatangan River in Sabah is home to the largest population of Bornean orangutans. Parts of this region, including the Lower Kinabatangan Wildlife Sanctuary, are protected, however even here patches of forest habitat are isolated from one another by large-scale oil palm plantations, river tributaries or drainage channels.

We partner with HUTAN Kinabatangan Orangutan Conservation Programme (KOCP). HUTAN-KOCP approaches conservation holistically, combining scientific research with protection and management of wildlife habitat. Inclusion of the local community is paramount, which is why awareness campaigns and community outreach, as well as development projects, are at the forefront of their work.

Our collaboration with HUTAN-KOCP ranges from financial input to technical support from our veterinary, and discovery and learning staff to assistance with the construction of rope bridges... for orangutans to connect fragmented patches of forests.

It's not just orangutan projects we support in Borneo though; we have expanded our involvement in recent years to encompass hornbills, crocodiles and fish.

- Hutan Hornbill Conservation Project:**
 In 2011, we began our support for the conservation of the eight species of hornbill found along the Kinabatangan River. Initially, the project started surveys to determine the distribution and abundance of the hornbill species. The project has now progressed on to incorporate plans for further hornbill research and habitat improvements to conserve the species, including the construction of artificial nest boxes in the area which Chester Zoo staff will assist with later in the year.
- Kinabatangan River Spirit Initiative:**
 This year we began our support for freshwater fish conservation in the Kinabatangan. This project aims to enhance knowledge and knowledge-sharing of the river's condition; and to empower local communities to take action. At the end of the first two years, a list of the status of threatened freshwater fish species for the Lower Kinabatangan will be produced, along with the identification of practical conservation actions that can be implemented by the local communities.
- Human - crocodile conflict:**
 We have supported our partners Danau Girang Field Centre in the Kinabatangan with their research on human-crocodile conflict which is increasing the understanding of the conflict through satellite tracking saltwater crocodiles, education and resource management.

Lower Kinabatangan
Wildlife Sanctuary

BORNEO

WE ARE
CHESTER ZOO
AND WE
ACT FOR WILDLIFE

Bornean Orangutan *Fast Facts*

Species:	Bornean orangutan (<i>Pongo pygmaeus</i> ; three sub-species: <i>Pongo pygmaeus pygmaeus</i> , <i>P. p. wurmbii</i> and <i>P. p. morio</i>)
IUCN red list status:	Endangered
Population:	45,000 - 60,000
Range:	Endemic to the island of Borneo which is made up of three countries: Malaysia, Indonesia and Brunei

MAKING A DIFFERENCE AROUND THE WORLD

All the places we have ACTED FOR WILDLIFE in the last three months



A focus on... AMPHIBIANS

Many amphibians are under severe threat of extinction due to a variety of factors. But one of the biggest problems globally is the deadly chytrid fungus which is decimating amphibian populations.

We have been working hard to help conserve frogs through activities both here at the zoo and in the wild. One species we focus on is the mountain chicken which is found on two islands in the Caribbean. We've been involved in monitoring trial releases in Montserrat and now our staff are using their expertise to refine techniques in conservation breeding that can be shared with our partners in the field.

This year we are also funding a number of other projects focussing on frogs. In Madagascar our funding is helping to assess the habitat preferences of the golden mantella as well as helping to protect breeding ponds from the effects of gold mining. We're also funding work in areas such as Bolivia, France and Portugal, into the spread of the devastating chytrid fungus.



Mountain chicken release in Montserrat

Fast Fact

Chytrid fungus has caused the decline or extinction of more than 200 species of frogs.

NEWS FROM... ASSAM

The aim of the Assam Haathi Project is to develop ways in which local people can live safely alongside wild elephants in Assam, India. Due to increased urbanisation and expansion of agriculture in the area, elephants have been frequently coming into contact with the people of Assam. This has resulted in damage to crops and buildings as well as causing human injuries and deaths. Our work in Assam has been going from strength to strength with recent news that the installation of an electric fence has proved to be a huge success. Joy, the project officer of partner organisation Ecosystems-India, and his team built the fence, which spans 17km, in just nine days!

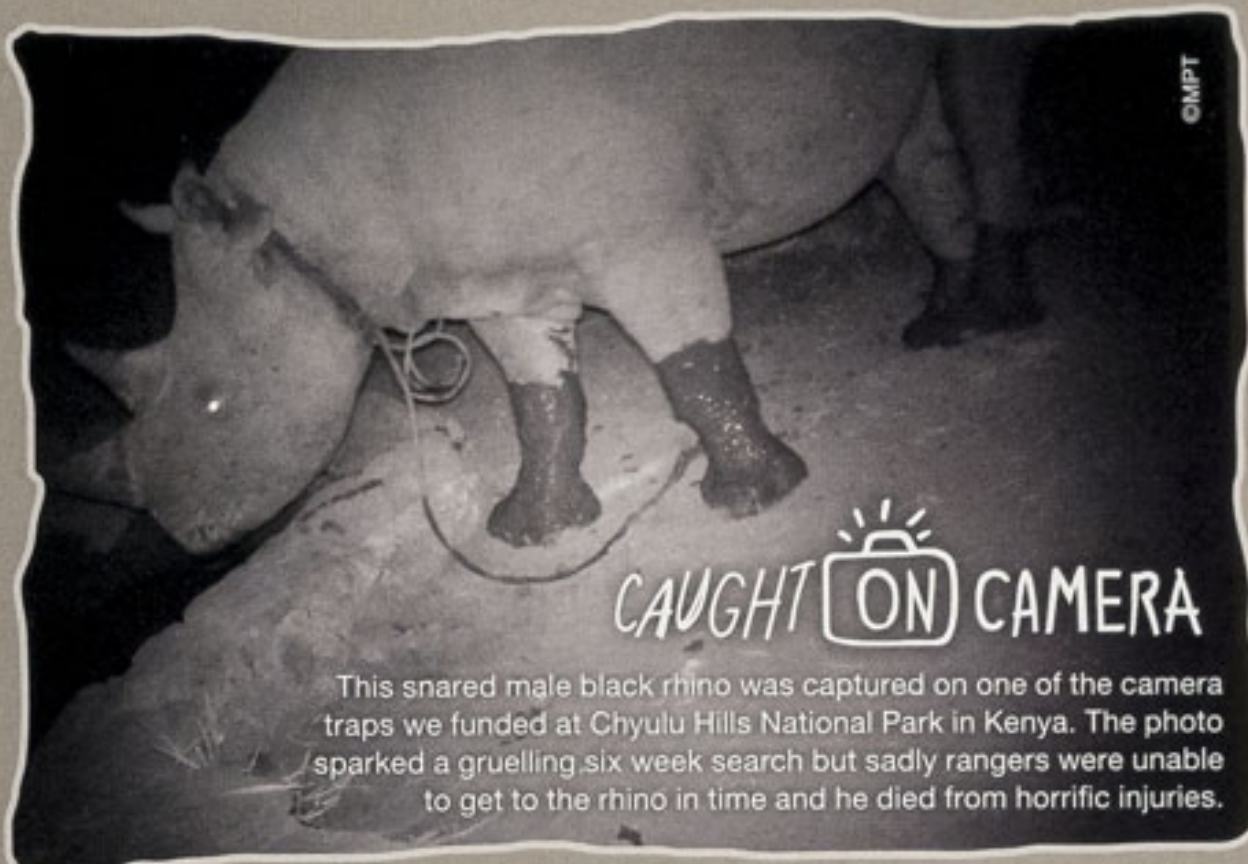
The fence surrounds six villages near Manas National Park and protects 780 households from the destruction of passing elephants. In the eight months since its installation there have been no crop losses or deaths. The project is an excellent example of communities working together to tackle human-elephant conflict and consequently help conserve Asian elephants in the wild.



AHP team building the electric fence.

Fast Fact

The Assam Haathi Project has assisted in protecting 1,400 households from elephants.



This snared male black rhino was captured on one of the camera traps we funded at Chyulu Hills National Park in Kenya. The photo sparked a gruelling six week search but sadly rangers were unable to get to the rhino in time and he died from horrific injuries.

Black Rhino Programme *Update*

Following the incident of the snared rhino (above), we've sent more funds to Chyulu Hills for additional camera traps. The sad story highlighted the importance of such equipment as increased monitoring can aid intervention before poachers have the opportunity to act and allows rangers to provide protection where it is most needed. We're now also supporting the monitoring and surveillance of water holes using infrared cameras in Chyulu Hills National Park in the hopes of building up a better picture of population dynamics.

NEWS ON CONSERVATION *FROM AROUND THE WORLD*

GOOD New figures show that the number of critically endangered Iberian lynx has more than tripled in recent years. Numbers of wild lynx were once as low as 94 individuals, but through active conservation initiatives in Spain and Portugal this has now risen to 312 in just a few years!

BAD The IUCN have reclassified the Yangtze finless porpoise from endangered to critically endangered, with less than 1,000 individuals left in the wild. This river ecosystem is under severe threat due to overpopulation, pollution, boat traffic and habitat loss. The Yangtze finless porpoise shares its home with other species in the river such as the Chinese alligator, Yangtze soft shell turtle and the Chinese paddlefish which are all listed as critically endangered on the IUCN red list.



Mascarenes Programme *UPDATE*

We've been supporting the work of Mauritius Wildlife Foundation (MWF) in the Mascarenes for almost 20 years. During this time, we have provided funding for many different projects which have helped conserve a wide range of species. In July staff and partners of MWF came here for a three day conference to discuss the progress so far and discuss future conservation and research plans. Our staff gave talks on their involvement with MWF, such as helping to hand rear critically endangered birds in Mauritius and assisting with plant propagation. We also heard about the work of PhD students we've been supporting. This year we are continuing our on-going support for eight long-term projects and we will also be supporting a new project focussing on endemic passerines such as the Mauritius cuckoo-shrike.

NATIVE SPECIES PROGRAMME *Update*

As part of our UK wildlife conservation programme we've been working alongside Lancashire Wildlife Trust to conserve the large heath butterfly. The plan is to reintroduce the species to a site in Lancashire, where it has not been seen for more than a century. A small number of females were collected from a donor site at Winmarleigh, near Preston and brought back to the zoo. The butterflies will be bred here under controlled conditions and released at Heysham Moss in north Lancashire next summer.



In other native species news, we've also supported the reintroduction of red squirrels into the Llangefni Dingle nature reserve in Anglesey. The Red Squirrel Trust Wales released four captive-bred squirrels into the community woodland last year, which have since flourished. Numbers of red squirrels on Anglesey have continued to rise in recent years due to the absence of invasive grey squirrels, which have not been seen on the island this year.

MEET MIN

Tun-Min Poh (Min) runs the Kinabatangan River Spirit Initiative in Malaysia. Min's project focusses on the conservation of freshwater fish in Kinabatangan River, an area in Borneo where we have supported orangutan conservation work for a number of years.



JOIN US TO ACT FOR WILDLIFE AND VISIT
www.actforwildlife.org.uk

STAFF GO WILD

...around the world!

Many of our staff here at Chester Zoo provide technical support to our conservation programmes and projects around the world. Here's an update of where we have been sending our staff recently to offer a helping hand.

CHINA

Ruth Pearson, from the discovery and learning division, travelled all the way to China to work with our partners at the Chengdu Research Base for giant pandas. Ruth was able to get involved with the Red Panda Schools Programme which educates school children about current threats to red pandas and encourages them to find ways to help protect them. Ruth also shared her expertise with staff from both the Panda Base and Chengdu Zoo by hosting a workshop on how best to evaluate and consequently, get the most out of their education programmes.



Schoolchildren in China learned from Ruth about protecting red pandas.

SUMATRA

Dr. Maggie Esson, our education programmes manager, recently visited Sumatra, Indonesia, where we provide support for the Sumatran Orangutan Conservation Project (SOCP). The SOCP is involved in direct field work as well as running the Batang Toru education project. The education programme focuses on increasing awareness and delivering conservation education in two communities living around the Batang Toru forest. Maggie visited Batu Mbelin Quarantine Centre where confiscated orangutans are given health checks and prepared for re-release into the wild. Maggie also got to visit the release site in Jantho, where 28 orangutans had previously been released. Here she observed the veterinary team replace transmitters on three orangutans, utilising skills which they credited to our own vet, Steve Unwin, who had previously visited the project.



Maggie, pictured above centre, with SOCP director Ian Singleton in Sumatra.



JAVA

One of our bird keepers, **Sally Baross**, recently travelled to Cikananga Conservation Breeding Centre in Java, Indonesia. Here she assisted with a conservation breeding programme for the critically endangered black-winged starling, a species under severe threat due to illegal trade. Sally helped provide health checks on the juvenile starlings and provide treatment to protect them from parasites. She also assisted with the daily husbandry of all the animals in their care, including gibbons, slow lorises and orangutans as well as many other bird species.



Sally is pictured at Cikananga breeding centre where she helped treat young starlings.



Fall in love with LANTERN MAGIC this year...

"The look on my daughter's face when she saw the animal lanterns, the people dressed up, the lit up walk ways and hearing the lions roar – it was unforgettable."

Visitor to Lantern Magic 2012

Last year families began a Christmas tradition by visiting Lantern Magic and this year we'll be making this unique event even more magical.

Try out your lantern making skills, visit the elephant house and fruit bat forest, meet our friendly festive characters and sample some of our deliciously tasty treats.

Then add your Christmas wish to our giant wishing tree at Oakfield Manor before turning the corner to see our beautiful animal lanterns – with some 'new arrivals' created especially for this year's event.

The nocturnal sounds of the zoo, a little bit of festive cheer and a visit from Santa will ensure your family enjoy a Christmas treat they won't forget.

Go to www.chesterzoo.org/christmas for more information and book early as tickets are limited.

Tickets are priced from £9.99 for adults and £8.99 for children (there are two special discounted preview nights too).



The animal lanterns and illuminated costumes have been made by Lantern Company.



Fundraising NEWS

MAKE A WILL WEEK

4 to 8 November 2013

PLANNING FOR THE FUTURE

Have you been putting off making a will?

Our Make a Will week is a great opportunity to do what you've been putting off but know needs to be done. It's understandable that it's not something you may want to think about, but making or updating your will is the only way to protect your loved ones and the causes you hold dear.

Our participating solicitors have kindly agreed to give their time again to provide a free standard will for Chester Zoo supporters. The zoo asks that the will-maker makes a suggested minimum donation (£90 for a single will or £135 for mirror wills) to Chester Zoo (registered charity 306077) when attending the appointment.

See list of participating solicitors. To take part simply call a solicitor from the list, mention **Chester Zoo's Make a Will week** and make an appointment between **4 and 8 November, 2013** and the solicitors will do the rest.

For more information visit www.chesterzoo.org/makeawill or contact **Lynsey Whitley** on **01244 650292** or by emailing l.whitley@chesterzoo.org

PARTICIPATING SOLICITORS

Ambrose Appelbe

7 New Square, Lincoln's Inn, London WC2A 3RA
Contact: Lucie Sleeman Tel: 0207 242 7000

Ambrose Appelbe

Woodcock Farm, Owlpen, Gloucestershire GL11 5BY
Contact: Felix Appelbe Tel: 01453 860 988

Quality Solicitors Chambers Fletcher

20 Winnington Street, Northwich, Cheshire CW8 1AF
Contact: Daniele Marks Tel: 01606 780 400

Cullimore Dutton Solicitors

Friars, White Friars, Chester CH1 1XS
Contact: Philip Appleby Tel: 01244 356 789

Dickson Haslam

25 Park Street, Lytham, Lancashire FY8 5LU
Contact: Christopher Mathews Tel: 01253 730 111

Ellis and Co. Solicitors

10 Castle Street, Chester CH1 2DS
Contact: Rachel Burke Tel: 01244 319 388

Knights Solicitors

34 Cuppin Street, Chester CH1 2BN
Contact: Ian Sydenham Tel: 01244 896 600

SAS Daniels LLP

35 White Friars, Chester, CH1 1QF
Contact: Carol Tyzack Tel: 0844 391 5841

The Law Office of Paul D'Ambrogio

Crown Buildings, 121A Saughall Road,
Blacon, Chester CH1 5ET
Contact: Elaine M Lawrie Tel: 0843 208 1111

Walker Smith Way Solicitors

26 Nicholas Street, Chester CH1 2PQ
Contact: Katie Brassington Tel: 01244 221 130

CORPORATE ADOPTIONS £500 per annum

Whether it's the company mascot, the animal you most align your brand characteristics to or even your CEO's favourite – we have an animal species just waiting to be adopted.

Becoming a corporate adopter is a great way to say you care about wildlife and help shout about it. As a corporate adopter you'll receive a ready-to-frame adoption certificate to display in a prominent place at work. You'll get a welcome mention in Z Magazine and your very own digital subscription for the year. It's perfect for forwarding to colleagues. And with your company name listed on the 'adopters recognition board' at the animal exhibit, Chester Zoo's visitors will know you care too!

You'll also receive four complimentary tickets to visit your adopted species and, coming soon, corporate adopters will also receive invites to exclusive business events here at the zoo.

To become a corporate adopter or to find out about other ways your company can support the zoo, contact Michelle on **01244 650265** or email development@chesterzoo.org

CHESTER ZOO 100 CLUB

The winners of the prize draws, held recently, were:

April 2013

£100..... Mrs Vanessa Hewitt, Frodsham
£100..... Dr Peter Duggleby, Wirral
£50..... Mrs Maureen Bramley, Chester
£50..... Mr James Seddon, Denbigh
£50..... Mr and Mrs D L Milligan, Wirral

May 2013

£100..... Mr Matthew Foody, Deeside
£100..... Mr Mark Lunt, Weaverham
£50..... Mr Graeme Errington, Malvern
£50..... Mr Jason Spencer, Saltney
£50..... Mrs Debra Stott, Wirral
£50..... Mr Peter Kitchin, Chester

June 2013

£1,000..... Mr Peter Warren, Brough
£100..... Ms Caroline Laing, Wirral
£100..... Ms Fiona Matthews, Neston
£50..... Mrs Ann Queen, Radcliffe
£50..... Mrs Susan Davies, Brough
£50..... Miss Marcella Milan, Rhyl

Membership of the 100 Club is still invited. All prize winners will be notified by post and will be listed in the next edition of Z. Please inform us as soon as possible if you change address.

If you wish to participate, please contact the development office on 01244 650 229.

TALKING CONSERVATION 2013 Programme

ZOO TALK

It's been great to welcome so many of you to our members' talks during 2013 and we hope you've enjoyed the talks as much as we've enjoyed giving them. We've had a proper insight into what it's like being a keeper at the zoo and there have been a few thrills including looking at some of the enrichment devices we use and feeling the beautiful tiger skin at the EAZA talk in July. Some of the Customs' confiscations we use in education haven't been quite so pleasant to see, but are interesting and a sad reality.

Continuing our theme of keeper talks, our autumn season kicks off in October with a talk from our aquarium staff; an interesting revelation of what goes on behind the scenes, what makes fish exciting and the vital work we do. In November, we're bringing together a group of staff, who've volunteered to do work at field projects, for a fun evening as they share their experiences.

We finish the year with a change to the previously advertised programme. Our first annual expedition was due to take place during 2013 with a team of zoo staff carrying out a biodiversity assessment in Nigeria. Due to the civil unrest in the country the expedition has been postponed so our director general, Dr Mark Pilgrim, and Becca Biddle will be telling you all about their field trip to Ecuador for our celebratory end of year talk.

Back by popular demand!

You loved Liz's cards and gifts last year! So, at our talks in October and November, we've invited Liz Pitchford back to sell her beautiful handmade cards and gifts, perfect for Christmas. Last year, Liz raised funds for the zoo's elephant project and this year, she'll be raising funds for our orangutan work.

Tuesday 22 October

Bringing an old aquarium into the 21st century

Jodie Peers, assistant team manager, aquarium team

The aquarium opened to the public in 1952. Built by Fred and June, daughter and son-in-law of George Mottershead, it was an amazing feat. The aquarium included the innovative feature of a roof tank with glass panels set in its base, allowing visitors to view fish from below. Today it may be regarded as a precursor to modern tunnel tanks.

The aquarium proved to be a very popular exhibit for the public. Behind the scenes, the dedicated aquarium staff went from strength to strength putting the aquarium on the map and on the history pages of captive fish keeping.

It is now one of the oldest buildings in the zoo. Jodie will be talking about how we are adapting an old building and methodologies to fit in with a bustling 21st century era of fish keeping to continue the good name of the aquarium.

Wednesday 13 November

Chester Zoo Staff Travelogue!

Chester Zoo staff

Each year, the zoo welcomes a number of guests as keepers for a day and we put the money they pay into a pot which is used to fund staff to volunteer for certain projects. Our Keeper for a Day fund is open to all permanent employees and gives staff from all sections fantastic opportunities to do conservation work in the field.

This talk brings together a group of staff who undertook Keeper for a Day funded work in 2012 and 2013. We'll look at the outreach work they did and how this relates to our own zoo collection. And there will be a few surprises as

they each bring along a mystery object from the zoo or field trips for a fun quiz and a spot of hands-on at the end of the talk. Get your thinking caps on!

Wednesday 4 December

A passion for parrots

Mark Pilgrim, Becca Biddle

Join Dr Mark Pilgrim and his technical assistant Becca Biddle as they talk about their recent field trip to the mangroves and dry forests of the Ecuadorian coast line, to research and survey the endangered Ecuador Amazon parrot (*Amazona lilacina*). Not only has this species been a long standing member of our collection, but it holds a special place in Mark's heart as he spent 15 years researching it in captivity and, since 1992 has co-ordinated it's European Endangered Species Breeding Programme. This field trip marked the start of our support for in the wild conservation for this parrot, work that will be essential for the survival of this species.

Members' talks are held in the Geraldine Russell-Allen Lecture Hall (near the zoo's Diamond Jubilee Quarter, off the A41).

- They are FREE to members (please bring your membership card and welcome letter)
- We offer a special rate of £2 to animal adopters
- The public and guests are welcome (£3.50 for non-members)
- Our lecture hall seats up to 170.
- Post-talk refreshments give you the opportunity to have an informal chat with speakers, staff and fellow members
- **Booking essential**

Interested in attending? Please call Kate Brankin in education on 01244 389 444 or email k.brankin@chesterzoo.org to book.

FAUNA & FLORA INTERNATIONAL (North West Group) AUTUMN PROGRAMME 2013

Friday 13 September

Explaining great ape re-introduction

Thanks to a special one-off workshop about great ape re-introduction (funded by IFAW and the ARCUS Foundation) being hosted by Chester Zoo over the weekend of the 14/15 September 2013, primatologist from all over the world will be in the Chester area. Several eminent scientists specialising in great apes have already agreed to come to a specially arranged FFI evening to give brief presentations about the work they are doing in the field. This will be an extremely rare opportunity to gain a fascinating insight into the use of this important conservation tool and the dilemmas and varying opinions involved. Anyone interested in the future of great apes should clear your diaries in order to attend.

Friday 25 October

Walrus, dingoes and other natural curiosities

with Stephen Dunleavy

Stephen Dunleavy has been a wildlife filmmaker for over 15 years having started his career at the BBC's Natural History Unit where he worked on a range of productions including *Wildlife on One*, *The Natural World*, *The Greatest Wildlife Show on Earth* and *Wild New World*. Stephen also produced two programmes in the award-winning David Attenborough series 'Life in the Undergrowth'.

Stephen now divides his time between wildlife film making and screenwriting and this should be an absolutely fascinating evening. (Postponed from the spring programme when this event was prevented by bad weather.)

November 2013

Details to be confirmed later but we are hoping to run a special event to mark the 30th anniversary of FFI (North West Group). Anyone not on our email list or those who wish to be added to the mailing list should contact Penny Rudd (details below) to ensure that you do not miss out.

Tickets may be available on the door but advanced booking helps us to keep costs down and guarantees a seat. Please call Penny Rudd on 01244 650215 or email PennyR@chesterzoo.org to reserve tickets. Doors open at 7pm for a 7.30pm start in the zoo's Geraldine Russell-Allen Lecture Hall. Both members and non-members of FFI are welcome to attend. Tickets cost £9 for FFI Members and £10 for non-members of FFI and includes a light buffet and wine. We offer a special concession for students of just £5 per ticket.

BUGS' Life!

We've unveiled our new 'world first' exhibition featuring 13 giant animatronic insects – including a 24ft-long scorpion, a man-sized ladybird and a 33ft-wide tarantula!

The huge creations have been custom built by Billings Productions, a top animation studio in the USA and the company behind the highly successful, award-winning *Dinosaurs at Large* and *Dinosaurs Bite Back* exhibits.

The exhibition ties in with a series of daily activities and our conservationists hope the event will provide a showcase for invertebrates and highlight the need to conserve threatened species.

Director general, Mark Pilgrim, said:

"We want **BUGS!** to put invertebrates in the spotlight, show how fantastic they are and really raise awareness of the need to conserve them. Engaging people, particularly youngsters, with conservation sometimes takes drastic ideas and new ways of thinking and that's precisely what we hope these 13 giant, robotic bugs will do.

"We are heavily involved in vital world-wide conservation work aimed at saving species from extinction. And it's not just iconic species such as Eastern black rhino and Asian elephants that we're focussed on. Our work with invertebrates, like our critically endangered Polynesian tree snails or rare British fen-raft spiders, is just as important to us."

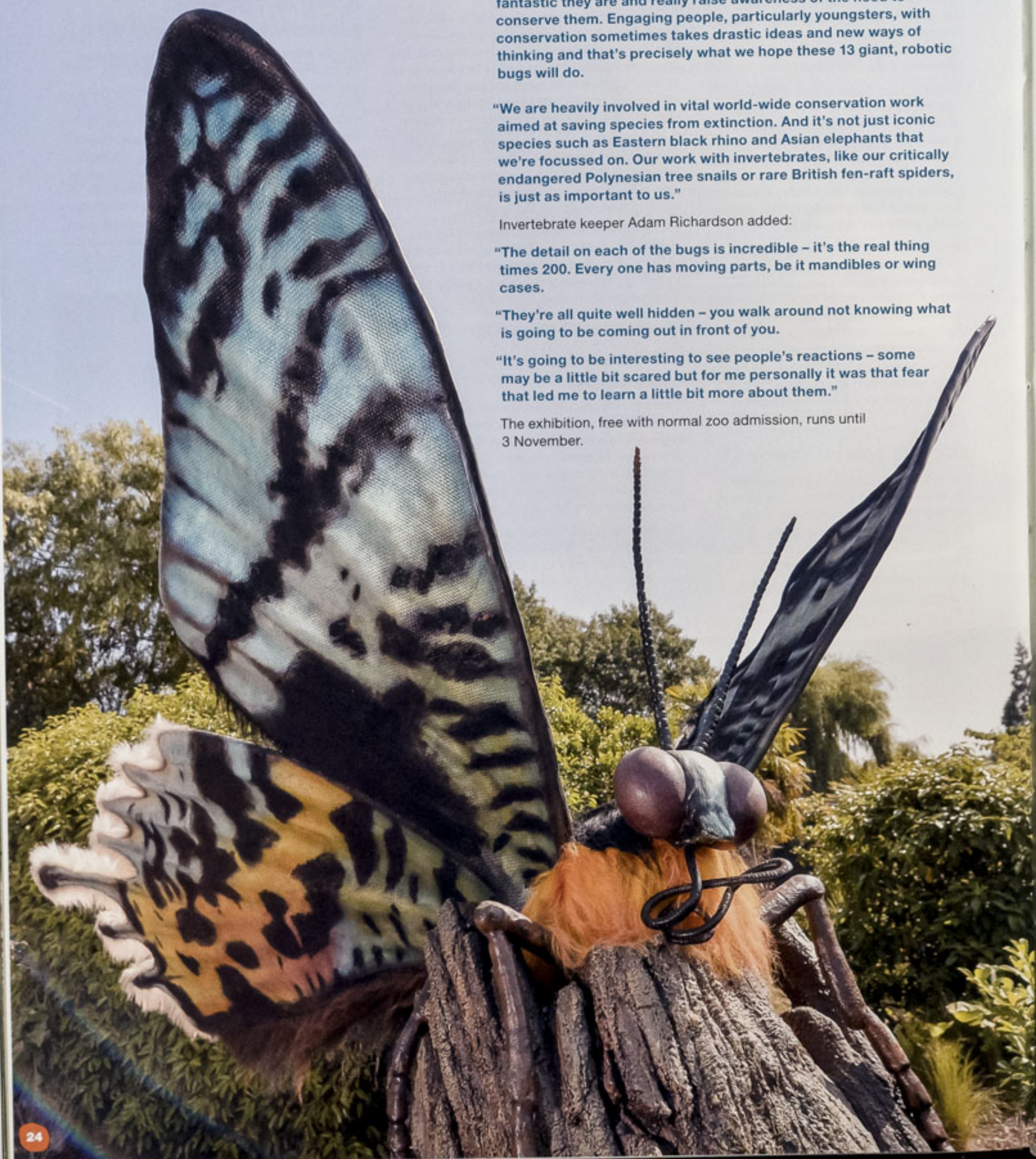
Invertebrate keeper Adam Richardson added:

"The detail on each of the bugs is incredible – it's the real thing times 200. Every one has moving parts, be it mandibles or wing cases.

"They're all quite well hidden – you walk around not knowing what is going to be coming out in front of you.

"It's going to be interesting to see people's reactions – some may be a little bit scared but for me personally it was that fear that led me to learn a little bit more about them."

The exhibition, free with normal zoo admission, runs until 3 November.





AMAZING FACTS ABOUT BUGS

- **Why they are so important:** Invertebrates are vitally important to a healthy planet – humans and other life forms could not survive without them. The food we eat, the fish we catch, the birds we see, the flowers we smell and the hum of life we hear, simply would not exist without bugs. Invertebrates underpin life on earth and without them the world's ecosystems would collapse
- The **emperor scorpion** is one of the largest scorpions in the world
- A **dragonfly** can fly at speeds of up to 34mph
- A **grasshopper** can jump more than 20 times its own body length
- The female **praying mantis** will often try to eat the male after, or even during, the mating process!
- The **firefly** is like a chemical engineer – mixing two liquids they can produce intense light without wasting any energy in the production of unwanted heat. We humans haven't managed to invent a light bulb that can do this yet!
- The **orb-web spider** chooses its construction materials according to the engineering requirements of its web – very strong silken cable ties for the outer fixings and sticky finer strands of silk for the inner framework. In fact the spider is able to produce around seven specifications of silk to weave its web. Why waste energy and over-spec the job!
- The worker **ants** know their place – they are born and die as workers, devoted to carrying food back to the colony, never having access to their queen and never mating. But at least they don't have to fight, the soldier ants do that job
- The **bombardier beetle** is like the skunk of the insect world – look out for the whoosh, the splash and the terrible smell. If you pose a threat to this beetle be prepared to be bombarded! Indeed, the defensive juices of a Bombardier Beetle can burn through skin! Now that's powerful stuff
- The weight of insects eaten by spiders every year, is greater than the total weight of the entire human population
- A **house fly** 'hums' in the key of F
- The males of some species of **stick insect** have never been discovered
- Little Miss Muffet of the nursery rhyme really existed. She was the daughter of Dr Mouffet who believed spiders had healing powers when eaten
- The **Brazilian wandering spider** is the most toxic spider in the world, more than earning its Greek name of 'murderess'
- **Aphids** are born pregnant and can give birth after just 10 days
- It's only female **wasps** that have stings
- The longest living-insect is the **termite queen**. They have been known to survive for at least 50 years and some scientists believe they may live to 100
- There are more insects in one square mile of field than there are people in the world





Andrew planting trees at our nature reserve.

A day in the life of a BIODIVERSITY TRAINEE

By Andrew Perry

Cheshire's rarest plants and animals are getting a helping hand to survive through our UK wildlife conservation programme. They include black poplar trees, sand martins, sand lizards and our beloved hazel dormouse. Their populations are monitored (sometimes using microchips), habitats are protected and where appropriate, species are re-introduced. To make the programme work new generations need hands-on training in the right skills. We are tackling this through a Heritage Lottery Fund scheme which aims to give aspiring new conservationists the skills and experience they need.

- Cross-pollination with its introduced cousins has led to numerous hybridised trees
- Black poplars are dioecious which means the male and female catkins grow on separate trees and more than 90% of British trees are male
- Cheshire, however, is unique in that a high proportion of its 300+ black poplars are female

The zoo has been striving to save this valuable species through a local Biodiversity Action Plan, recording, monitoring and planting trees around the county. Kerry and I were handed a collection of records managed by the zoo, detailing the location, sex and condition of Cheshire's black poplars. We imported the data into RODIS – the system used by Record to input wildlife sightings. Once verified, the information in RODIS is transferred to a database where it can be used alongside historical information and analysed.



The black poplar, threatened with extinction.

So what is a biodiversity trainee?

Having an environmental qualification may tick the first box on an application form, or help you through the shortlisting process for that crucial first job, but how do you meet all other criteria? Volunteering has traditionally been the answer but has the downside that supporting yourself financially is difficult. Plus organisations taking volunteers are generally charities operating on limited budgets. Help is at hand, however, from the Heritage Lottery Fund which enables organisations to take on promising trainees wanting to develop conservation skills. Applicants are generally graduates who develop over a year's traineeship through an Individual Learning Plan. Be it experience with a chainsaw, or teaching children about wildlife, it is down to each trainee to find opportunities they need and contribute to the work of the organisation. And yes, it really is paid!

My background

I first realised my true career passion thanks to the British Trust of Conservation Volunteers who I joined on Sundays improving local green spaces. I went on to study conservation at university, earning my keep as a residential volunteer on a National Trust estate. Eventually I felt ready for my first job in conservation. I most wanted a role on a nature reserve, but I still lacked the surveying and monitoring skills these posts required. Then I discovered the biodiversity trainee posts with Chester Zoo. Being able to tailor the traineeship towards the skills I needed, and the wealth of opportunities available from the zoo and partner organisations (Cheshire Wildlife Trust and Record) made it an opportunity too good to miss.



What I'm doing now

I was delighted to get a place on the traineeship along with three other successful candidates. Fellow trainee Kerry and I spent the first block of the placement with Record – the local record centre for Cheshire, an invaluable opportunity for developing our skills with Geographical Information Systems (GIS) which we put to use digitising some Phase 1 Habitat Assessments of Local Wildlife Sites and assisting with queries that came in to the record centre. We also got our boots dirty tree planting at a new nature reserve being developed by the zoo, and got hands-on with great crested newt surveys.



Black poplar project

Learning how biological records are collected and stored, and what the data can tell us, formed an insightful part of my placement with Record. We worked with a data set of black poplar trees in Cheshire. The black poplar (*Populus nigra subsp betulifolia*) is one of our largest, rarest native trees and could potentially be extinct in the UK within 30 years. Its decline is due to:

- Lowland floodplain, its natural habitat, has vastly declined due to land drainage

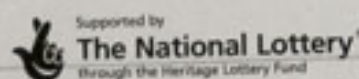
What I will be doing next...

The next block of my placement will be with Cheshire Wildlife Trust in the field on a white-faced darter dragonfly re-introduction project, a badger vaccination programme and various species and habitat surveys. I will also collaborate with fellow trainees to plan and deliver a wildlife recording day with the zoo and a living seas themed event with Cheshire Wildlife Trust.

Later we will be back at the zoo to work with the discovery and learning team on the BUGS! exhibition and learn about funding applications with the fundraising team.

The traineeship is an intense period of training, but I am enjoying every day and am re-assured to hear that last year's trainees both secured jobs – one for an ecology consultancy, the other with a Wildlife Trust. My learning plan already has a few items checked off, which in turn means ticking more boxes on future job application forms!

If you are interested in becoming a biodiversity trainee or would like more information on the project contact Lynsey Whitley via l.whitley@chesterzoo.org.



The islands of South East Asia are what we're looking to recreate when our *Islands* project opens in 2015. These *Bronchocela cristatella* lizards are native to that part of the world and will be a species that takes residence in *Islands* when it does open.

Until then our keepers have moved a male and three females in with our two reticulated pythons in a large exhibit in our Realm of the Red Ape where you'll find our Sumatran and Bornean orangutans. The lizards are now exploring their new surroundings and our team is going to carefully monitor them with the aim of slowly increasing their numbers.



Lizards lounge...
in realm of the ape



Tantalising TARANTULAS

If you're squeamish about spiders then you might want to step around our *Islands in Danger* exhibition over the next few weeks. For a number of Montserrat tarantulas are about to move in to that section of the zoo. They were recently brought back from the Caribbean island of Montserrat by Dr Gerardo Garcia, our curator of lower vertebrates and invertebrates and they will soon go on show where they're sure to be a huge attraction, rivalling our current BUGS! exhibition of giant-sized animatronic insects. You can find out more about BUGS! - which includes a 33 feet wide tarantula - on pages 24 and 25.



BMW X1

Halliwell Jones



The Ultimate Driving Machine

AN INNOVATIVE CAR DESERVES FINANCE TO MATCH.

BMW X1 xDRIVE18d xLINE FOR ONLY £299.99 PER MONTH.

BMW Select finance representative example: BMW X1 xDrive18d xLine

Term of agreement	47 Monthly payments	On the road cash price*	Customer deposit	Dealer deposit contribution	Total deposit	Total amount of credit	Option to purchase fee ^h	Optional final payment	Total amount payable	Rate of interest	Representative 5.9% APR
48 months	£299.00	£28,509.99	£3,499.00	£3,851.45	£7,350.45	£21,159.54	£10.00	£10,747.00	£32,196.95	5.9% fixed	

To find out more or to book a test drive¹, contact us on 0845 470 4130.

Halliwell Jones Chester
Sealand Road, Chester, CH1 4LS.
0845 470 4130 halliwelljoneschesterbmw.co.uk

BMW EfficientDynamics
Less emissions. More driving pleasure.

Official fuel economy figures for the new BMW X1 range: Extra Urban 43.5 - 68.9mpg (6.5 - 4.1l/100km). Urban 29.1 - 54.3mpg (9.7 - 5.2l/100km). Combined 36.7 - 62.8mpg (7.7 - 4.5l/100km). CO₂ emissions 179 - 119g/km.

Finance example is based on a BMW Select agreement for the model stated, a BMW X1 xDrive18d xLine, a contract mileage of 32,000 miles and an excess mileage charge of 7.20p per mile. *On the road cash price is based on manufacturer's recommended retail price and includes 3 year BMW Dealer Warranty, BMW Emergency Services, 12 months' road fund licence, vehicle first registration fee, delivery, number plates and VAT. ^hCredit arrangement fee payable in two parts: £0.00 with first monthly payment and £0.00 at the end of the agreement. ⁱOption to purchase fee and optional final payment payable at the end of the agreement if you decide to purchase the vehicle. Excess mileage charges and vehicle condition charges may be payable if you return the vehicle. Prices are correct at time of publication (07/2013) and are subject to change without notice. Retail customers only. Finance is subject to status and available to over 18s in the UK only (not the Channel Islands or Isle of Man). Guarantees and indemnities may be required. Advertised finance is provided by BMW Financial Services Europe House, Barley Way Hook, Hampshire RG27 9UF. We commonly, but not exclusively, introduce customers to BMW Financial Services, who may pay us for introducing you to them. ¹Test drive subject to applicant status and availability.



Chester Zoo, Upton-by-Chester, Chester, CH2 1LH
Tel. 01244 380280. Fax. 01244 371273 Email: info@chesterzoo.org Web: www.chesterzoo.org

Founded in 1934, the North of England Zoological Society is a registered charity. We need your help and support to raise funds for the care and conservation of rare and endangered animals both in the zoo and across the world.
Registered charity No. 306077.