

ISLANDS  
at CHESTER  
ZOO

# News from the Zoo

with Dr Mark Pilgrim  
director general



Before I tell you about what's going on at the zoo I wanted to take a moment to reflect on the two remarkable women and long-term

supporters of the zoo who sadly passed away in the spring.

In early May our dear friend June Williams, daughter of our founder George Mottershead and a person who helped shape the very fabric of the zoo, passed away. June first moved to Oakfield House with the rest of her family in 1930 when she was aged just four-and-a-half. A year later her father's dream to build a zoo without bars became a reality and June soon became the face of the zoo with George using her time and again for publicity shots. June spent a large part of her life both living and working at the zoo and met her husband Fred here in 1947; the couple going on to raise their family here. Even after her retirement she continued to support the zoo, visiting frequently. Not only did she give her blessing to last year's BBC One series *Our Zoo* but supported the team throughout the series, even taking on a cameo role. June was a lovely lady, always full of fun and with a mischievous twinkle in her eye. She told me of how pleased she was with the development of the zoo and these words I treasure. In her passing we have lost a friend and an ambassador of the zoo and she will be greatly missed.

We sadly lost another friend of the zoo, the Rt Hon Baroness Rendell of Babergh CBE, in May. Ruth had been a tremendous supporter since the House of Lords event in aid of our Asian elephant appeal in 2000. In 2011, Ruth was made Vice President in recognition of her continued support of our work. Ruth visited the zoo every year to see new developments, new additions and her beloved elephants. Over the last 14 years, Ruth had been a tireless supporter of the zoo – both in donations and by giving her valuable time – and we remain truly grateful for her friendship. She was an incredibly smart lady with an intense stare that would break into a warm smile especially when discussing elephants.

One project I know both June and Ruth were very excited about was *Islands* – indeed Ruth took a tour as recently as last October. The planning and building of *Islands* has flown by and I am eagerly anticipating the opening on 13 July. *Islands* is a phenomenal exhibit, similar in size and scale to other global zoo exhibits such as *Masoala Rainforest* at Zurich Zoo in Switzerland and *Burgers' Desert* at Burgers' Zoo in Holland. We are at the cutting edge with the way we are doing many things on *Islands* like exhibiting our animals, public engagement and conveying our conservation messages. Because of this we are attracting interest from the global zoo community and, of course, the public. We shouldn't underestimate what an important new chapter this is for everyone here and an exciting point in our history.

*Islands* will put a huge spotlight on the region of South East Asia, highlighting many conservation messages, including the illegal bird trade. We help many rare Indonesian bird species in the wild affected by this including the black-winged starling. Andrew Owen, curator of birds, Javier Lopez, veterinary manager and Matthew Speed, former bird team intern, recently travelled to Java in Indonesia to visit the Cikananga Conservation Breeding Centre (CCBC). We work with the centre, helping to conserve many birds in the country including the Javan green magpie and black-winged starling. On Andrew's recent visit he looked at the husbandry practices and veterinary needs at the centre and established health and biosecurity protocols. The trip also gave Andrew and Javier the chance to visit the black-winged starling release site and evaluate the progress that is being made there.

Over the past few months we have had a number of new arrivals but the one I have been most excited about is the okapi calf that was born back in April. The arrival of *Usala* is an important boost to the breeding programme for this endangered animal and, as he is only the second okapi calf to be born here, it made his arrival very special. In the wild, okapi live in the jungles of the Democratic Republic of Congo (DRC) where it is hard to monitor their numbers. What we do know is that their numbers are in decline due to habitat loss and hunting for their meat so any birth is a boost for this beautiful species. If you have not yet been to the okapi enclosure to see our new arrival, I would recommend you go over and take a look.

Just before I sign off I wanted to give a special mention to the huge amount of work and commitment that has gone into getting *Islands* open. Whenever we open new areas of the zoo I am always amazed at the fantastic hard work our staff put in. Everybody has gone the extra mile to get the job done and I am extremely proud of the fantastic team we have here. I'm excited to see *Islands* open and can't wait until it is no longer a project but an integral part of our zoo. This is the start of a new chapter in our history and I can't wait to see how it unfolds. Thank you again for your continued support.

## ENVIRONMENTALLY FRIENDLY?

As part of our commitment to the environment, we're giving you the chance to receive 'Z' electronically. Swapping over is really easy. Simply contact the membership office on **01244 650208** or email **membership@chesterzoo.org** with the email address you would like the link sending to – BUT DON'T FORGET to include your membership number or postcode so we can find you. You'll still receive the magazine by post if you don't wish to receive it electronically.

# Features

In your Z Magazine...

The official magazine for Chester Zoo Members & Adopters

CORAL SANDS Page 6-7

PANAY Page 8-11

PAPUA Page 12-13

BALI Page 14-17

SUMATRA Page 18-21

MONSOON FOREST Page 22-27

SUMBA Page 28-29

SULAWESI Page 30-32

## Let the story unfold...



By Dr Maggie Esson  
education programmes manager

I'm very pleased that this edition of Z is all about *Islands*. As education programmes manager I've been eating, breathing and sleeping *Islands* for over five years and now, with the finishing line in sight, it's lovely to pause and take few moments to explain *Islands* to you.

*Islands*, unlike most other zoo exhibits, is based around a story, a story I was lucky enough to be heavily involved in writing. It's so much easier to engage and educate the public if you have a fascinating story to tell. I was given the task of writing a story based around South East Asia, a place I have been lucky enough to visit through work. It's a fascinating place made up of lots of different islands.

Many are similar in climate and terrain but home to very different species and cultures and I had the task of weaving this diversity into an interesting, compelling storyline. As an educator the way we inform visitors has changed; conservation now is as much about people as it is about the animal and plant species, so the main part of the storyline was focussed on how people live alongside wildlife. That has been a big part of the theming and why we've brought in a wide range of artefacts across from South East Asia. For me the fact that we can interweave the human story alongside the animal stories is what makes *Islands* special.

So I want to take this opportunity to encourage you to become an explorer and come to *Islands*, so you can see, first-hand, the story unfold in front of your very eyes.



ISLANDS at CHESTER ZOO  
Extraordinary discoveries. every day



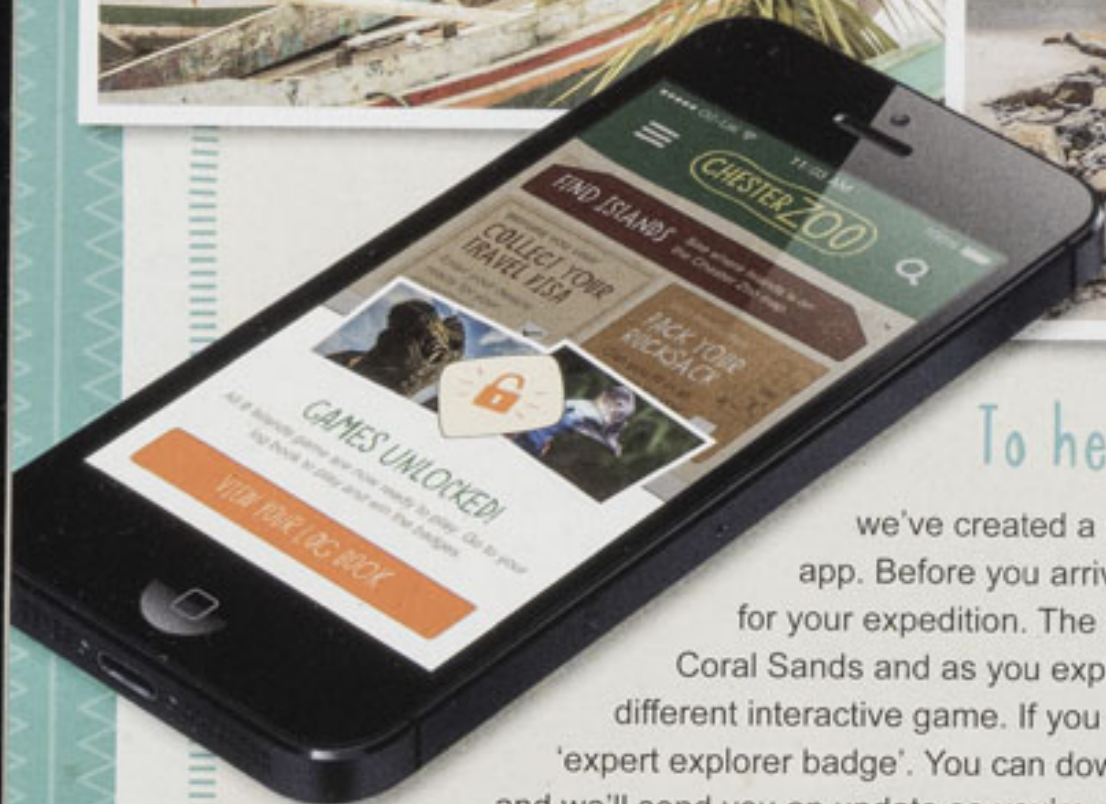


## CORAL SANDS



# CORAL SANDS...

As you enter Coral Sands...  
soak up the sights and sounds of South East Asia,  
and make the final preparations for your journey  
through *Islands*...



## To help you on your expedition

we've created a new *Islands* section on our award-winning Chester Zoo app. Before you arrive you can play your first *Islands* game to prepare you for your expedition. The app will then be unlocked as soon as you arrive on Coral Sands and as you explore each island you'll have the opportunity to play a different interactive game. If you successfully complete all the games you'll receive our 'expert explorer badge'. You can download the app now from [www.chesterzoo.org/app](http://www.chesterzoo.org/app) and we'll send you an update so you're ready for your first *Islands* visit.

# Behind the scenes...



As you explore *Islands* there will be a variety of messages along your journey explaining the importance of conservation of the islands of South East Asia. As *Islands* is based around a story, this interpretation has to have a natural feel to it, so it fits seamlessly into the *Islands* storyline without looking too obvious or jarring.

Interpretation officer, Fred Howat, has been developing these conservation stories for the past year...

Each island features a number of conservation stories told in many different ways. For example on Sumatra, stories will be told through visual, written documents as well as sound based messaging, and through methods including scene setting and storytelling.

You will explore the recreated research camps deep in the forest, and see evidence of the work going on around them; drones being used to spot orangutan nests from the air, climbing gear to hoist hornbill nest boxes high into the trees, and camera traps silently capturing movement in the forest. Throughout *Islands*, you will find interesting newspaper articles about logging and palm oil, postcards from zoo staff, Act for Wildlife reports and government posters which highlight the key issues.

This material doesn't just exist; it must be researched to fit our field conservation projects and the species we have in the zoo, themed in relation to the appropriate island and audience, and developed to give it depth and age. As new projects and partners are found, and species researched and better understood, we can reflect this by updating and interpreting this new information in interesting and immersive ways. It is this adaptability that will make *Islands* unique.



As Coral Sands is the embarkation point for the expedition, some of the travelling trunks and cases kindly donated to the zoo will be displayed here. As you explore the different islands you'll be able to spot other donations we've received such as binoculars and camping equipment. We would like to take this opportunity to thank everybody who donated their items to *Islands*.



**Endemic warty pigs to reclaim forest**



The Warty Pig Breeding Centre is making plans to release local warty pigs from local forests with help from the community, in recent years, the critically endangered Warty Pig, which can only be found on Flores and Sumba, has seen a dramatic decline from hunting and forest clearing with domestic pigs, creating hybrid pigs, which threaten breeding further. Making the pigs part of your visit, these hybrids have also been reported to be causing damage to farmers' fields and crops. With help from us, it's for Warty pig and from local people, the breeding centre aims to protect and restore local and hybrid pigs from the work being done by the community to restore and re-plant of protected warty pigs.



The permit office on Coral Sands is where children will get chance to become an explorer for the day and pick up their free logbook. The book will be packed with interesting things to find and record on their journey through *Islands*.



PANAY

# PANAY...

## The Thatched Bridge leads to Panay...

*Inspired by a real island found in the heart of the Philippines, this island is home to our critically endangered Visayan warty pigs. Think bright, colourful and warty!*

Panay Conservation Park is where you will learn more about the warty pig...

Only 200 Visayan warty pigs are thought to be left in their native habitat in the Philippines - making them the rarest of all wild pigs. They have distinctive tufts of hair and are covered in warts (scent glands) - which aren't that easy to spot! During breeding season males grow their mane into a striking 'rock and roll' hair style, similar to a 'mohican', to impress the females. This distinctive look doesn't last though as at the end of the breeding season the male becomes almost bald again.

The decline of the species - almost to the point of extinction - is blamed on habitat loss and hunting. Today wild populations of the Visayan warty pig can only be found in the little forest that's left on the islands of Panay and Negros in the Philippines. At one time they ranged over at least six islands.



## Visitor Engagement Volunteers

Graham Jones and Elizabeth Boardman: two of our Visitor Engagement Volunteers



To help us spread the word about the fantastic conservation work surrounding *Islands* we've recruited 75 visitor engagement volunteers.

These volunteers have been trained to assist visitors on their *Islands* journey. They will be on hand to talk to visitors about *Islands*, highlighting key conservation messages that are linked with our field programmes and will be trained to encourage the visitor to learn what they can do as individuals to contribute to biodiversity conservation worldwide.

The volunteers, who will be identified as such on their uniform, will assist staff wherever possible to ensure that visitors have a fantastic experience and end their visit having learnt something new. The roles are in addition to zoo ranger and guest services roles.

The volunteers have attended a range of workshops to ensure that they are equipped with the knowledge and skills they need to approach and talk to our visitors effectively and have spent the past few weeks practicing their roles within the zoo.

We plan to recruit more volunteers later in the year, and if you're interested in becoming a volunteer please email Lisa Carrier at [l.carrier@chesterzoo.org](mailto:l.carrier@chesterzoo.org)

## Behind the scenes...

### Juggling the curators

In the past few weeks, over 650 animals have moved over to *Islands*. Before each animal was moved, every single enclosure needed to be thoroughly checked and signed off by the relevant curator and it's been Chloe Helm's job to coordinate this.

Chloe explains:

"One of the highlights of my job is that every day is different. My work on *Islands* has revolved around making sure the enclosures are suitable for the animals they are designed for. This required me to work very closely with both team managers and curators, to ensure that what was built on site reflects the signed off drawings and met all the animals' requirements. I also worked closely with all members of the development team in order to respond quickly to any animal and plant related technical queries.

Site visits involved checking containment barriers which has proven particularly challenging for the primate enclosures! Artificial rockwork had to be painstakingly inspected and smoothed down to create non-climbable walls for the orangutans and Sulawesi macaques. The sign off process for some areas involved a thorough inspection of the entire enclosure. From this, I created a detailed list of any defects which was then issued to the appropriate contractor to rectify.

With 21 enclosures to sign off, this was time consuming and required careful planning to fit in to curator calendars. Following completion of zones, animals began moving into their new enclosures ready for *Islands* opening in July."



## HELPING IN THE WILD

Over 700 Philippine species are categorised as having, without conservation action, a high probability of extinction in the near future. Here are some of the threatened animals we are working with:

### VISAYAN WARTY PIG

SCIENTIFIC NAME: *Sus cebifrons*

IUCN RED LIST STATUS:

Critically endangered

FIELD PROJECT:

Conservation breeding programme which aims to maintain viable insurance populations for potential reintroductions.



### PHILIPPINE COCKATOO

SCIENTIFIC NAME:

*Cacatua haematuropygia*

IUCN RED LIST STATUS:

Critically endangered

FIELD PROJECT: On-going species monitoring, habitat protection and community engagement.



### PALAWAN FOREST TURTLE

SCIENTIFIC NAME:

*Siebenrockiella leytensis*

IUCN RED LIST STATUS:

Critically endangered

FIELD PROJECT: Rehabilitation and release of confiscated turtles from the pet trade. Protection, monitoring and wardening of release sites.



### BALABAC MOUSE DEER

SCIENTIFIC NAME:

*Tragulus nigricans*

IUCN Red List status: Endangered

FIELD PROJECT: Population surveys and habitat assessments.



### VISAYAN WRITHED-BILLED HORNBILL

SCIENTIFIC NAME:

*Aceros waldeni*

IUCN RED LIST STATUS:

Critically endangered

FIELD PROJECT: Conservation breeding programme and habitat monitoring and protection.



# PANAY...

is one of over 7000 islands that make up the Philippines.

These unique islands are considered one of the most diverse wildlife areas in the world and are home to hundreds of species that are found nowhere else. The human population of the Philippines is expanding rapidly and associated habitat destruction and poaching is putting many of these species under threat. Working with our partners we are involved in many conservation projects on these islands.



# Staff Go Wild

We've been working to help protect species in the Philippines for over 20 years.

Our head of field programmes, Scott Wilson, and conservation project manager, Roger Wilkinson, recently travelled to the Philippines to check on the progress of the various projects we support and make plans for future work. It was an action - the various packed few weeks spent visiting all of the different programme components.



Scott and Roger with Katala's Philippine Cockatoo Conservation Programme team outside the office on Masarua Island



Endemic to Cebu Island, the Cebu cinnamon tree is Critical by Endangered. Scott and Roger visited the Cebu Biodiversity Conservation Programme's reforestation project.



The Katala Foundation closely monitor the remaining populations of Philippine cockatoos. They use bird rings which allow each individual bird to be identified throughout its life. Scott helped the team check the health and band two cockatoo chicks.



The Katala team are increasingly having to care for and rehabilitate confiscated Palawan forest turtles that are under severe threat from the illegal pet trade. Scott and Roger visited the centre where the turtles are kept until ready for release.

## PARTNERS

### Katala Foundation



The Katala Foundation is a non-profit, non-government organisation based in Palawan. The Katala Foundation aims to protect and conserve the wildlife of the Philippines, in particular the endemic Philippine cockatoo. This is done through a range of species monitoring and protection as well as community engagement activities. We support their work with the Philippine cockatoo, Palawan forest turtle, Calamian deer and the Balabac mouse deer.



### Philippines Biodiversity Conservation Foundation Inc.

We've been supporting the work of the Philippines Biodiversity Conservation Foundation Inc. (PBCFI) for over 20 years. PBCFI works on a number of conservation projects which aim to restore vital habitats and viable species populations through habitat protection, education programmes and conservation breeding centres. These projects include the Cebu Biodiversity Conservation Programme, West Visayas Threatened Endemic Species Conservation Programme and the Philippine Hornbills Conservation Programme.



PAPUA

# PAPUA...

The Suspension Bridge leads to the next island, Papua.

Discover the remarkable and sometimes fearsome bird life lurking in these dense and misty forests.

At first glance you could almost mistake the Southern cassowary for a prehistoric predator. These large birds have a fearsome reputation of being one of the most dangerous birds in the world. It's their strong legs that have given them this status as they can kick out when threatened and use their dagger-like claws which can sometime have a deadly result.



Cassowary comes from a Papuan word meaning 'horned head' which refers to the tough skin on the top of their head which looks a little like a helmet. As they run with their heads down, this bony feature comes in handy to help them charge through thick forests. Their large legs are strong enabling them to run fast which is essential for the males as they need to be pretty speedy in order to chase the females for courtship. The females don't hang around either, once they've laid their eggs they abandon the nest to go on the hunt for a new partner – leaving the male to raise their chicks.

This type of bird does not fly, cassowaries don't need to, as they have no ground dwelling predators, meaning there's no need for them to escape quickly or worry about raising their chicks.



There's also plenty of food on the forest floors for them to feast on. All of this has resulted in the species adapting over the years, eventually losing their flight feathers and becoming heavier and bigger.

Cassowaries play an important role in helping the rainforests to survive. They are important dispersers of forest fruit, especially those with seeds too large to be carried by other birds and native wildlife. They eat hundreds of different kinds of fruit which they eat whole; the seeds stay intact and then come out whole in their droppings. The seeds are then spread throughout the rainforest as the cassowary travels around the island depositing the seeds in their droppings.



# Behind the scenes...

## How *Islands* will change the zoo's commercial operations.

Jamie Christon, managing director, explains how we have been preparing commercially for *Islands*...

*Islands* is going to change the whole dynamic of the zoo and the way we operate as we are adding an extra 20% onto an already huge site. Going from 110 acres to 125 acres of operational zoo means that we will have some great commercial opportunities, the largest being within catering. On *Islands* we will have a 450-seat terrace restaurant. This means that we will have nearly 2000 covers in the zoo, so our catering department has had to grow substantially and we now have 250 catering staff, nearly a third of our workforce.

Over the past few years we have focussed on implementing a car parking strategy to make sure we can accommodate an increase in visitors. We've recently appointed a new full time car parking team who manage and assess the site on a daily basis. We've also created a new car park so we have the capacity to receive 18,000 visitors every day and we've also implemented changes on the A41.

We are also looking to maintain a level of 10,000 visitors on any given day to avoid huge peak days and quiet days so there has been a lot of work over the past few months on developing a flexible pricing structure. We are, of course, weather dependent but the structure is there to ease huge peaks and troughs and to maintain an excellent visitor experience every day. This is especially important for *Islands* as we want to try and make sure everybody can fully enjoy the experience.

Another big priority was to create an attraction which people could visit all year round, hence Monsoon Forest which is the largest zoological building in the UK. This will allow visitors to come and see us on days when the weather isn't very good and still have a fascinating experience. Visitors can spend a lot of time in Monsoon Forest, which is always very warm as it's set at a constant 80 degree heat, and see a number of critically endangered species whilst learning about the environments they come from.



To get the zoo ready we have recruited over 300 seasonal staff, the highest number we have ever recruited. Our full complement of staff is now 760. It's been a huge team effort to prepare for the opening and all the staff in all the different departments have worked very hard to make sure our visitors get the best experience. For me July 13th is the day I'm looking forward to the most - I'll be eagerly waiting for people to enter *Islands* at 10am on opening day and to see the public's first reaction as the next chapter in our history begins.





## BALI

The Dragon Bridge leads to an island rich in spirit, culture and art.

# BALI...



## THE INDONESIAN SONG BIRD CRISIS

**"To be a real man, one must have a wife, a house, a horse, a dagger and a singing dove"**

– Javanese proverb

Indonesia is a country steeped in culture and has many ancient traditions and it's one of these traditions that is driving many Indonesian birds to the brink of extinction...

Throughout Indonesia millions of birds are kept in captivity, a tradition deeply embedded in Indonesian culture. The Javanese proverb (left) provides insight into the origins of this culture. What originally concerned just a handful of songbird species, favoured for their ability to sing, has spiralled out of control, becoming ever more unsustainable and now encompassing all birds, irrelevant of colour, song, size but most importantly their conservation status.

Caged birds can be found hanging outside houses, restaurants, shops and just about everywhere you turn in Indonesia. Many of these birds are thought of in the same way we think of a bouquet of flowers – something beautiful to admire for a few days until they wilt away and die. Songbirds are still sought after by hobbyists who enter them into song contests – forever seeking birds with the most original and unique songs.

It is thought that over a third of the captive birds in Indonesia are originally harvested from the wild, with over 1.3 million being caught every year. They are then sold at huge bird markets – where thousands of birds can be observed crammed into tiny cages. Unfortunately, these markets are some of last places you can see many species because the demand for captive birds is devastating wild populations, driving many species to the brink of extinction.





See the Bali starling, one of the world's rarest birds, in the Bali starling temple

Found on Nusa Penida - one of three islands that are part of Bali - is one of the rarest birds in the world, the Bali starling. Discovered only 100 years ago, this beautiful bird has since been trapped almost to extinction.

In 2001 only six starlings remained in the wild but after remarkable conservation breeding efforts this number has increased. However numbers are still worryingly low so breeding and release projects are extremely important for the long-term survival of the species. We have a partnership with the Begawan Foundation in Bali and are working together to save this critically endangered bird.

We provide skills, expertise and funding for an important breeding centre on the island and, alongside the Begawan Foundation, we assist with the reintroduction programme and monitoring of wild populations.

## JAVA

Our conservation work focussing on the Indonesian songbird crisis is not just in Bali, we also work with the Cikananga Conservation Breeding Centre CCBC in Java. The island of Java is home to a number of critically endangered passerines and our work with the Javan green magpie and black-winged starling is a major part of our conservation work here.

Conservation breeding, education and re-introductions are at the forefront of the projects. Working with CCBC, we are now the leading supporter for these projects. As well as providing technical expertise through husbandry, veterinary care and reintroduction guidance, we also fund the salaries of vital staff at the centre. The successful breeding and release of these birds is vital to protect their future.



© Stephan Bulk



# In Java Staff Go Wild

Bird curator Andrew Owen, veterinary manager, Javier Lopez and former bird team intern, Matthew Speed, visited the CCBC where they worked closely with the conservation manager, Anais Tritto and the avicultural team to provide technical expertise. Matthew will be spending five months at the CCBC to continue to provide support to the project.

Evaluation of the husbandry practices and veterinary needs, as well as establishing health and biosecurity protocols, was a critical part of this trip. In 2014, 150 birds were stolen from the centre so, during this visit, 115 of the centre's birds were micro-chipped providing the birds with permanent identifiable markers – an incredibly important tool for animals susceptible to illegal trade. Following the 2014 thefts, we funded the construction of a large security wall and the acquisition of two guard dogs to assist in combatting this problem. The trip also gave Andrew and Javier the chance to visit the black-winged starling release site and evaluate the progress that is being made there.



# Behind the scenes...

## Moving the mammals

Take in the stunning Balinese views across the Broken Bridge and discover the elusive banteng grazing beyond the rice terraces.



The transfer of animals over to *Islands* will probably be the largest mass move of animals in our history. The mammal teams have moved eight species over to *Islands* as Nick Davis, assistant curator of mammals, explains

We've moved a total of fifty individual mammals across to *Islands*, ranging from our large banteng bull to the young anoa calf. In some aspects it's like starting a whole new zoo and the way we approached this was very similar to other animal moves. We had a detailed plan in place for a long time. Our dedicated teams were at the heart of these moves and we have been working with them for months, making sure that the moves were as stress-free as possible for the animals.

The keepers utilised many of their animal husbandry skills, and relied heavily on team work. Two of the most challenging animal moves for us are the Sumatran orangutans and the Sulawesi black crested macaques, it is really important that the primate team know exactly what to do at the exact right time, causing the least disruption as possible to the animals. One of the hardest logistical moves was moving Gaston, our bull banteng, who at over 600kg was more than a handful!

For him the plan was to train him to come into a large crate weeks before the move to familiarise him for the big day.

### ACT FOR WILDLIFE

Our partners at the Cikananga Conservation Breeding Centre in Java are in urgent need of binoculars. Can you help?

Last year, we sent out a few old pairs of binoculars to the project with Andrew Owen when he visited. These helped kick start a new education project 'Children Birdwatching Club'. We want the next generation to be bird watchers not bird catchers...



"The energy coming from the children during the last session is promising for the future. However many children want to participate in this activity and currently, only three small pairs of binoculars are available. Every binocular donation is more than welcome for our education programme!"

#### Cikananga Conservation Breeding Centre

By donating your unwanted binoculars you will be helping us Act for Wildlife. With your support we can inspire the next generation of bird watchers in Java, which is vital to the future survival for some of the world's unique bird species.

Please contact [actnow@actforwildlife.org.uk](mailto:actnow@actforwildlife.org.uk) or drop your binoculars into Guest Services on your next visit.

## HELPING IN THE WILD

### JAVAN GREEN MAGPIE

SCIENTIFIC NAME:

*Cissa thalassina*

IUCN RED LIST STATUS:

Critically endangered

FIELD PROJECT:

Conservation breeding and surveys to find remaining wild birds.



### BLACK-WINGED STARLING

SCIENTIFIC NAME:

*Sturnus melanopterus*

IUCN RED LIST STATUS:

Critically endangered

FIELD PROJECT:

Conservation breeding, release and monitoring.

### BALI STARLING

SCIENTIFIC NAME:

*Leucopsar rothschildi*

IUCN RED LIST STATUS:

Critically endangered

FIELD PROJECT:

Conservation breeding, release and monitoring.



ON ISLANDS

© Wildlife Reserves Singapore



# SUMATRA

# SUMATRA...

home to some of the most loved and most endangered animals you'll find on our Islands.

In the wild, Sumatra is the sixth largest island in the world and home to some of the most diverse tropical forests on the planet.

When you cross the Lantern Bridge you'll enter a dense bamboo forest. Along the trail there will be clues to indicate that one of the most powerful and striking animals in the world, the Sumatran tiger, is just around the corner.

Sumatran tigers are critically endangered and protected by law in Indonesia however they are still being hunted and killed purposefully by poachers. The tigers' habitat is shrinking by the day as the forests are being destroyed for agriculture and palm oil plantations. Not only does this make it easier for poachers to capture them, it also means they're losing their food too.

There are less than 500 Sumatran tigers left in the wild. The remaining population is hanging on to survival by a thread, and without conservation efforts their future could look similar to that of the Javan and Balinese tiger species - extinct.



## Conservation in Sumatra

### The Palm Oil Crisis

The biggest threat facing biodiversity in Sumatra is the growing oil palm industry. Palm oil is an edible vegetable oil that comes from the fruit of the oil palm tree. It is widely used in our food, cosmetics and household products. The growing demand for palm oil has seen plantations replace natural forests, destroying the homes of orangutans, tigers and many more species throughout the island. But this problem isn't just affecting the biodiversity of Sumatra. It's occurring across Indonesia and Malaysia and is starting to impact other countries such as the Philippines and Nigeria. Our staff have been working hard, both in Indonesia and Malaysia and in the UK, to try and alleviate the issues caused by the increase in plantations and promote the use of sustainable palm oil.

### Sustainable Palm Oil

As the cheapest, most high yielding and versatile vegetable oil on the market and with demand increasing every year, there is an urgent need for all palm oil to be grown and managed sustainably. The most widely recognised certification standards have been developed by the Roundtable on Sustainable Palm Oil (RSPO) which aims to protect primary forests, areas of high conservation value and the rights of local communities and plantation workers. Engaging with various stakeholders locally, nationally and globally to find solutions to this conservation problem is one way in which we have been a part of influencing many sectors in the chain. We work with national and international zoos, field partners, food suppliers, schools, local companies and environmental NGOs to influence and create a demand for sustainable palm oil.

### Labelling

In December 2014 it became mandatory for specific types of vegetable oil used in food products to be labelled. This means that palm oil can no longer be hidden within a list of ingredients. Many food producers now label their products as containing sustainable palm oil through logos such as RSPO, their own brand logos, or simply detailed in the ingredients label. However there are still a number of products which contain palm oil and its unknown to the consumer whether this palm oil is sustainable or not. Research is often required into the company's policies to find out this information.

### The Sustainable Palm Oil Challenge

- **LOOK, CHECK, ACT!**
- **HELP US** to increase the demand for Certified Sustainable Palm Oil in our supermarkets, and make it easier for us to find sustainable products
- **WATCH OUT** for our Sustainable Palm Oil Challenge being launched soon!



# FIELD PROJECTS IN SUMATRA AND BORNEO



Our veterinary officer, Steve Urwin, co-created the Orangutan Veterinary Advisory Group (OVAG) in 2009 and workshops are held annually. OVAG aims to empower Indonesian and Malaysian conservationists to improve the health of orangutans both in the wild and in captivity.



Community education is an important component of conservation work in Indonesia. Working with partners the Sumatran Orangutan Conservation Programme, we collaborate on education work and community awareness in Bolang Tok forest in northern Sumatra which holds an important population of Sumatran orangutans.



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Working with our partners HUTAN-KOCP in Borneo, our staff have been involved in building bridges over river tributaries to help reconnect areas of habitat for orangutans and other primates in what is becoming an increasingly fragmented landscape.



© HUTAN

Due to increased deforestation the number of natural tree cavities for birds to build homes in is decreasing. To alleviate these problems members of our bird team joined our partners HUTAN in Borneo, to help construct artificial nest boxes for hornbills and position them in the tree canopies, creating much needed homes for these majestic birds.



In Sumatra, our partners at Liverpool John Moores University are investigating the importance of reforested sites for orangutans using Conservation Drones - a new technology in ecological monitoring.

## Hutan Jungle Reserve

As you continue your journey through Sumatra look out for the wildlife that may be around you. You may hear the loud calls of the rhinoceros hornbill or get your first glimpse of the critically endangered Sumatran orangutan.

Orangutans are the only apes that spend almost their entire lives in the rainforest canopies of Sumatra and Borneo but their treetop homes are being lost to make way for oil palm plantations which is pushing them, and other animals found on these islands, closer to the edge of extinction.

## MEET THE STAFF

Conservation officer,  
**Cat Barton**

Cat's work is heavily focussed around managing partnerships with field projects in Borneo and Sumatra and engaging with stakeholders in the palm oil supply chain.



Assistant mammal curator,  
**Dr Nick Davis**

Nick is part of a zoo team assisting our field partners in Borneo with conservation activities aiming to conserve the biodiversity of the area. These activities include building orangutan bridges and constructing artificial hornbill nest boxes.



## HELPING IN THE WILD

### SUMATRAN ORANGUTAN

SCIENTIFIC NAME: *Pongo abelii*

IUCN RED LIST CATEGORY:

Critically endangered

FIELD PROJECT:

Population surveys and education programme.



### BORNEAN ORANGUTAN

SCIENTIFIC NAME: *Pongo pygmaeus*

IUCN RED LIST CATEGORY:

Endangered

FIELD PROJECT: Habitat protection, reforestation and behavioural studies.

### PAINTED TERRAPIN

SCIENTIFIC NAME:

*Batagur borneoensis*

IUCN RED LIST CATEGORY:

Critically endangered

FIELD PROJECT:

Rearing and release programme.



### RHINOCEROS HORNBILL

SCIENTIFIC NAME:

*Buceros rhinoceros*

IUCN RED LIST CATEGORY:

Near threatened

FIELD PROJECT:

Establishing artificial nest boxes, population monitoring and awareness raising for this, plus seven other species of Hornbill found in the region.



### SUMATRAN RHINO

SCIENTIFIC NAME:

*Dicerorhinus sumatrensis*

IUCN RED LIST CATEGORY:

Critically endangered

FIELD PROJECT:

Conservation breeding and habitat protection



Behind  
the  
scenes...  
Observing the animals.

For just over a year now our science team has been collecting a range of data on some of the species that are moving over to *Islands*.

Twelve students have been involved in these projects to date, many from our long-standing collaborating institutions. These include the University of Manchester, Manchester Metropolitan University, the University of Liverpool, Harper Adams University and the Nuffield Foundation. Focal species include Sumatran tigers, Sumatran orangutans, rhinoceros hornbills, southern cassowaries and banteng.

The observations mainly focus on animal behaviour, enclosure use and visibility from the public's perspective as well as visitor behaviour to measure changes from the old enclosures to the new exhibits. We will continue monitoring these species for at least a year after their move to record how the animals are adapting to their new homes.



# MONSOON FOREST



When you enter the rainforest... you'll notice a change in climate. It's tropical here! As you walk around among the animals and plants your senses will be invigorated with the smell of exotic fruit, the sound of rolling thunder and the touch of rain against your skin. Welcome to the largest indoor zoo exhibit in the UK.

# MONSOON FOREST

# Tropical birds...

As you wander around this magnificent building, you'll be surrounded by an array of tropical birds.

Some of these species of bird are found in the rainforests of Papua New Guinea and its surrounding islands. These beautiful birds will be free flying in Monsoon Forest so you can see the different behaviours between each species. Here are three of the many species you'll find:

## VICTORIA CROWNED PIGEON

(*Goura Victoria*)



- This striking bird gets its name from the crown of white tipped lacy feathers on top of its head
- The Victoria crowned pigeon mates for life, producing only one egg each year which both the female and male take turns to keep warm
- Sadly, it is the birds' beauty that is putting their numbers under threat – their eye-catching features have attracted widespread hunting



## WHITE-NAPED PHEASANT PIGEON

(*Otidiphaps aruensis*)

- The wild white-naped pheasant pigeons can only be found on the Aru islands, close to Papua
- It searches the forest floor for food, eating seeds and fallen fruits
- The bird can be heard over a long distance through forests

## SUPERB FRUIT DOVE

(*Ptilinopus superbus*)



- It lives in the rainforests of Papua New Guinea, Solomon Islands, Philippines, Sulawesi and Australia
- Their wings make a whistling noise when they fly

# Behind the scenes... transforming the landscape.

Over 50,000 plants and 1,000 trees are being used in *Islands* to transform the landscape into a slice of South East Asia.

Mark Sparrow, curator of horticulture and botany, and his team have spent months managing and preparing the site for opening as he explains...

**"It's been a huge challenge planting across 14 acres of what was a large building site! We've been working flat out to get *Islands* as densely planted as possible..."**

On the perimeter of *Islands* we have put a selection of species which are native to the UK including hawthorn, buckthorn, blackthorn and willows. These will provide habitat for existing wildlife. The majority of the rest of the vegetation is composed of evergreen and deciduous plants with lush and exotic qualities to create a tropical rainforest effect. Some plants will just feature in a specific area to help guide visitors when they are entering or leaving a new island.

Monsoon Forest is the area of *Islands* that really excites me; the temperature inside the building will be around 80°F with 70% humidity which means we've been able to grow plants from South East Asia. These plants will add to the fragrance of the forest with fruiting trees such as breadfruit, starfruit, paw paw, coconut, mango and banana. One of my favourite trees going into Monsoon Forest is the durian tree. This tree produces large, strong smelling, edible fruits - wild orangutans travel great distances just to taste this delicious fruit.

We will also be showing off some of our national collection of the tropical pitcher plants (*Nepenthes*). These are amongst the largest and most spectacular of all carnivorous plants; they trap insects in their pitchers before devouring them. They are critically endangered so it's vitally important we conserve them and the climate in Monsoon Forest is a perfect place to grow and show them off."



The forests of South East Asia are home to a wide range of weird and wonderful reptiles and amphibians...

in Monsoon Forest you'll get to see some of these fascinating creatures up-close and personal.

## Behind the scenes... Populating Monsoon Forest

Over the last three years curator of lower vertebrates and invertebrates, Gerardo Garcia and his team have been preparing for *Islands*. At times this has meant a lot of juggling of space as well as a steep learning curve.

Along the way we have found animal oddities, help from unusual places and some new species, as Gerardo explains...



"Quite early on in the planning of *Islands* we realised that to create nice naturally inspired enclosures linked geographically to our key *islands* on the project we would have to start working with species that had not really been kept in zoos before. Luckily for us we had previously managed closely-related species so we used this as a starting point to build on.

This meant pioneering husbandry techniques for a selection of unusual lizards known as forest dragons, a family of frogs known as gliding frogs and a bunch of bugs, many of which we couldn't even pronounce! We looked at a range of reptiles, amphibians, fishes and almost 40 species of invertebrates and one crocodylian! From this we aimed to be able to select groups of species which would live happily alongside each other in large mixed species exhibits representing various types of habitat found on the islands of Sumatra and Sulawesi.

The main reason for obtaining such a large number of individuals was to ensure that we could develop the relevant skills to maintain a selection of species within the collection for a long time. This process in many cases takes a minimum of two years and our general target is to breed a new species to second generation before we feel comfortable to exhibit it. So we had to learn as much as we could about each of the species before they were selected, prepare suitable accommodation for their arrival and then make sure we

managed them properly to ensure we had a sustainable population that could be exhibited. Then, and only then, would they make it to the displays.

In the case of stick insects we selected four giant species, three prickly species and one very large leafy species. These will make up our team of stick insects that will be selected for exhibit in the Tripa forest research station. The exhibits will change regularly giving visitors opportunities to see different species each time they visit. With a large collection of differing species we can switch the species easily without having to start afresh each time. So sometimes we will have metallic green stick insects from Peleng in Sulawesi, other days we will have prickly ones from Sarawak in Malaysia. The idea of the Tripa forest research station is to represent the sense of discovery, with different species being found, photographed and documented - our visitors will be able to do just the same. The station won't just display bugs, there will also be an unique representation of freshwater fishes, ambassadors of the fragile Indonesian peat swamp forest.



With the snakes, lizards, and frogs it was a bit different. In Monsoon Forest we will have four enclosures that will represent different areas of the forest from rushing waterfalls and forest streams to the dense tangled understory of the forest itself. Within each of these enclosures we will have a mix of species. To achieve this vision of natural harmony we needed to learn as much about their microhabitat and feeding preferences, breeding and general territoriality of each of the species before we could run the risk of mixing species.

Over the last two years we have been regularly breeding several of the species of lizard we had acquired for the project. In the last few months we have had fertile eggs from another three species of frogs and one species of skink gave birth to tiny replicas. We have also identified possible species that can be housed together and some that really can't. It's all about getting the right environmental parameters for each of the species, in harmony, like playing different instruments in an orchestra.

## TRIPA FOREST RESEARCH STATION

Insects make up the largest and most diverse group of organisms on earth, contributing to as much as 80–90% of the world's biodiversity. Tripa Forest Research Centre in Monsoon Forest will be home to a wide range of invertebrates, lower vertebrates and tropical plants which are vital to the South East Asian ecosystem and if you take a trip to the centre you could learn how and why they are so important. Our zoo rangers will be hosting a range of workshops in the research centre on topics including the valuable role bugs play in our ecosystem.

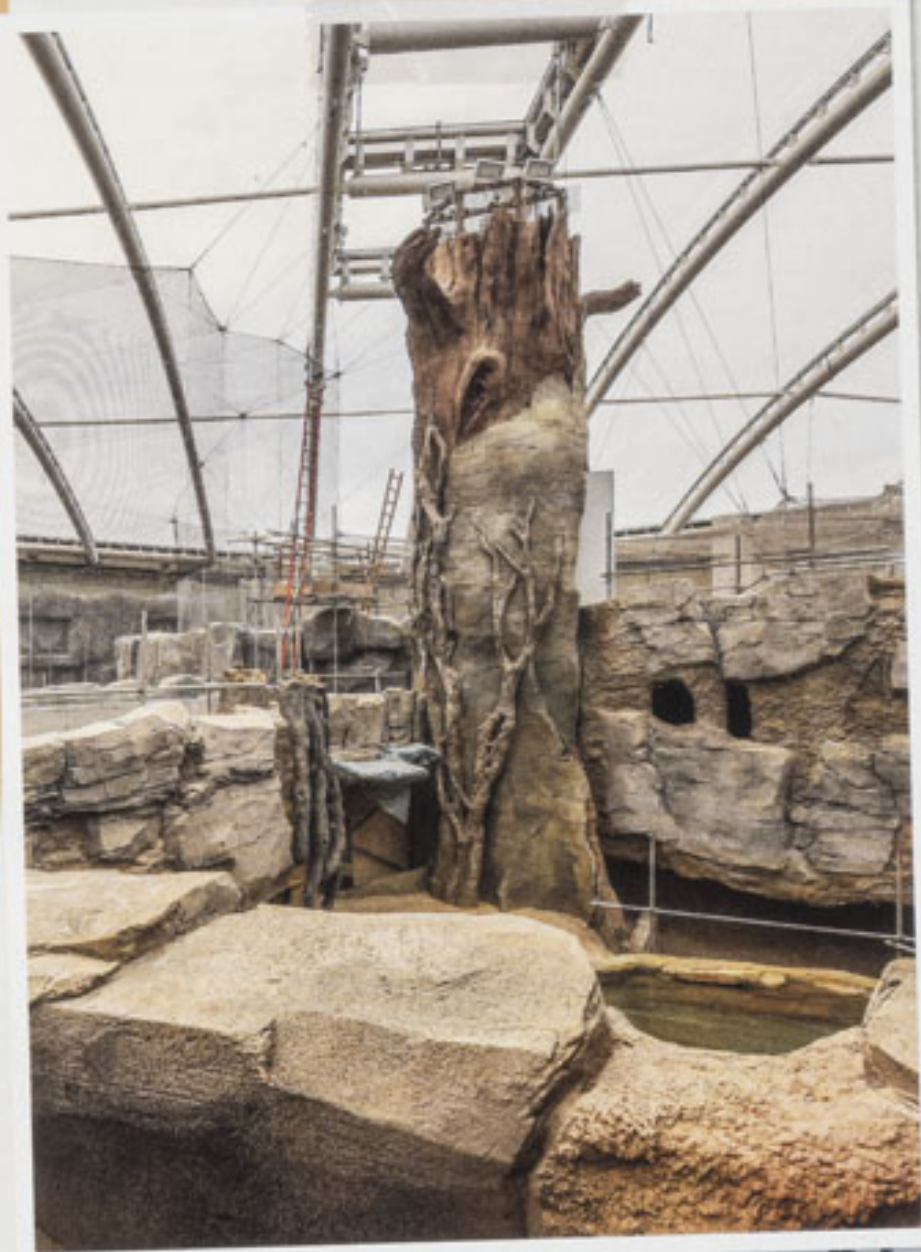
## SUNDA GHARIAL - (*Tomistoma schlegelii*)

The Sunda gharial - a type of crocodile, is native to the jungles of South East Asia. This freshwater crocodilian is marked as a vulnerable species by the IUCN as there are less than 2,500 left in the wild. This creature looks similar to a crocodile and has a distinctive long narrow snout.

We originally identified several species from the Sumatran/Malaysian forests that we wanted to exhibit but at the time we knew of very few people who had ever bred the species, so initially we looked into species living in similar habitats and with a good history of captive maintenance—we call them analogue species. For example in frogs we approached specialists in both zoos and the private sector and whilst doing this we discovered that the team at Viennas Schonbrunn Zoo had been working for a number of years with some of our most wanted list including three species we had previously thought too tricky for us to risk. Learning from their team and adapting the principles here we have managed to get established groups of seven species. One species, the File-eared tree frog (*Polypedates otitophus*) proving to be highly productive, with almost 100 tadpoles being reared at the time of writing and almost 30 adult frogs ready for *Islands*.

The challenges we have faced to fill Monsoon Forest with a range of animals from our department has allowed us to develop husbandry skills with little known species. These skills have not only helped make the displays at *Islands* unique but can also be applied to research and conservation projects in the future. Along the way we have met field researchers who have shared their experiences with the species in the wild and colleagues at other collections that have helped us with their care in captivity. Now we have developed a series of exhibits that will captivate all the explorers destined for Monsoon Forest... enjoy."





## Monsoon Forest is the largest indoor zoo exhibit in the UK

-it has taken two years to construct and is a magnificent building. This is no ordinary structure: it has some fantastic features and systems to help it run as efficiently as possible.

The Monsoon Forest roof is made out of Ethylene Tetra Fluoro Ethylene (ETFE) – a specialist polymer which has the necessary thermal values to insulate but also allow light penetration.

There are also large vents at the top of the roof space to allow air in and out and a whole building management system (BMS) that regulates humidity, temperature and environmental conditions.



This is one of two giant tree trunks in Monsoon Forest and although they are themed to look like trees these are actually masking something very different - air ducts.

These air ducts are a vital part of the building as they act as a heat recovery system. They suck in all the air from the building, extract the heat and then mix this with fresh air. The system includes thermal tanks of water that can store the heat, and can be drawn on to regulate the temperature within the building.

It's going to rain in the forest at certain times throughout the day.

This will bring the 'monsoon' to Monsoon Forest, but the feature does not just add to your immersive experience - it's actually part of the irrigation system in the building. We have lots of sprinklers within the roof structure, showering water around the building and watering all the plants.



# Behind the scenes...

"Does this smell like a forest to you?"

This was the question asked a few months ago by head of IT Martin King as he held out an assortment of what looked like sugar sachets.

"It's not the average question you would expect from an IT department. Martin takes up the story...."

The IT team is made up of nine people, and this small team has been working flat out to get *Islands* ready, along with the obvious jobs like ensuring the site has Wi-Fi, tills, network points for CCTV and phones, they have had a whole host of other, more intriguing jobs. Many companies use smells to entice people into their shops, restaurants or retail outlets. On *Islands* we are taking the visitor on a journey and to make the whole experience more realistic we are, where we can, making the experience multi-sensory.

My team and I have been responsible for putting these multi-sensory apparatus into place. One part of that is bringing the smell of the South East Asian rainforest to Monsoon Forest. The smell is to add to those from the vast array of plants and fruits. We will install an atomiser inside the building, above the doorway so when the visitor walks into the building they will experience the fantastic earthy smell of the rainforest.

The atomiser is not the only piece we are installing on site to make the experience a multi-sensory one. We have placed over 40 speakers throughout *Islands* so each area has its own soundscape authentic to that particular island. For example when the visitor enters *Islands* on Coral Sands the idea is to transport them to a fishing village with people talking in Malay, boats creaking and seabirds calling. This runs off a network around the site which is controlled remotely from a tablet computer. This means that we can adjust the sounds quickly and easily depending on how many people we have on site. We can do this across all the speakers or just pinpoint a particular area.

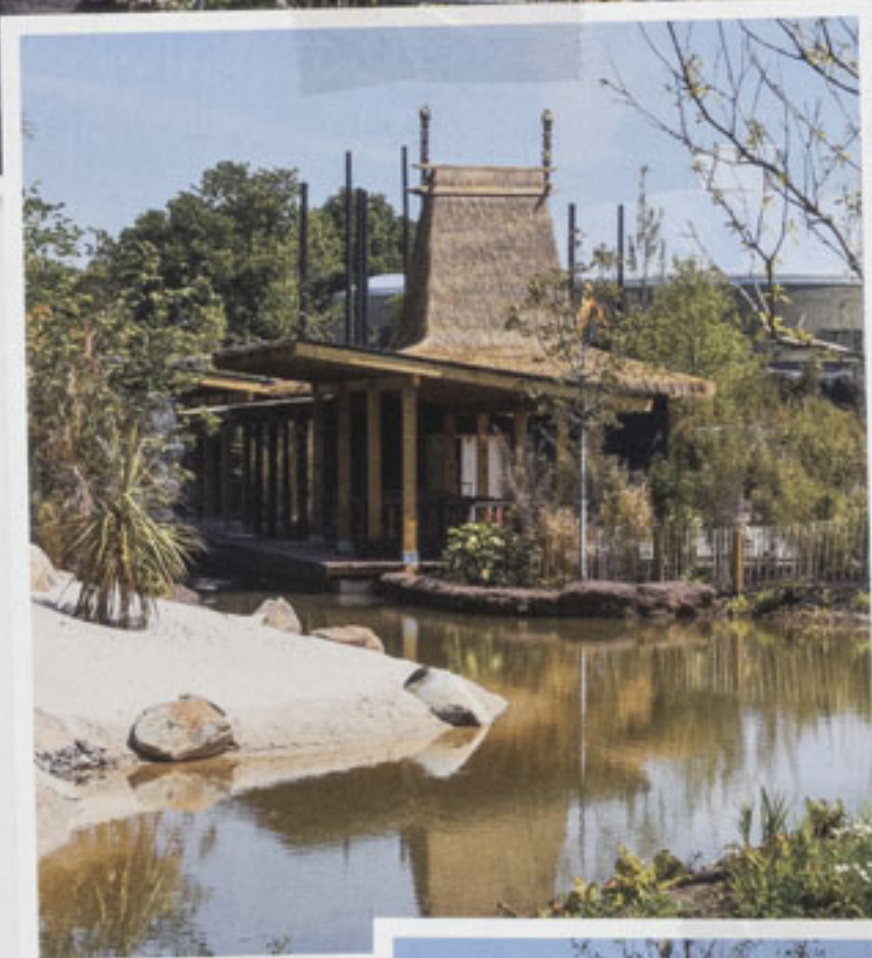


We have also added some state of the art projection equipment to the Sumba School room, so that when the room is not being used by school children, visitors can go inside and have another multi-sensory experience. We've commissioned a film crew to film a video of sunrise to sunset in a village in Sumatra. We applied for, and were lucky enough to get, a major grant from the Wolfson Foundation, which means we've been able to install the latest technology, 360° projection and speakers. The video will be sped up and will play over five minutes so once the visitor enters the room they will be transported to that Sumatran village."





SUMBA



# SUMBA

Sumba Bridge leads to a small lively village bustling with activity.

## Inspiring the conservationists of the future

In April we were delighted to receive our first grant instalment of £75,000 from the Wolfson Foundation, an independent charity that supports and promotes excellence in the fields of science and medicine, health and disability, education, the arts and humanities. A total grant of £210,000 has been awarded by the Foundation to fund the learning space within *Islands* known as the Sumba School. This space will allow visitors to discover more about the many international cultures with which we work and the science of conservation. It will also host teaching sessions, talks, a varied programme of bespoke short films and hands-on interactive workshops.

Paul Ramsbottom, chief executive of the Wolfson Foundation, said: "This is a wonderfully exciting project that will entice and inspire all ages. We are particularly pleased to be funding the education building which will help communicate conservation science in compelling fashion."



THE WOLFSON FOUNDATION

The Sumba School under construction with its typical Sumbanese peaked roof structure

More information about the Wolfson Foundation can be found at [www.wolfson.org.uk](http://www.wolfson.org.uk)

## Lazy River Boat Trip

You can extend your expedition a little further here and take your exploring skills to the next level, by hopping on the Lazy River boat journey. This allows you to see all the *Islands* from a different perspective whilst looking for clues that will tell you what other wonderful animals and plants can be found here.



## News from the education team

Our education team is busy developing ideas for some new workshops that will be based in the Sumba School. Keep an eye on our website for details of our new workshops, which will cover topics as diverse as classification, conservation science and business and tourism.



## Behind the scenes... Finessing the fleet

There will be 14 boats making their way around the Lazy River, all individually themed around a different South East Asian island. Even though these boats look extremely authentic there's a great deal of work that's gone into making them look this worn and gritty.

Arts Construct is the team behind theming the boats that will be part of the *Islands* expedition – they have been working to make them look like they've just arrived after spending many years bobbing along the rivers of South East Asia. Julie Jenkins, from Art Construct, explains:

"Even though these boats look like they've been used for years, everything we used to create this look is brand new. It's such an interesting job and you never get bored with it.

It's unique in the sense that we have to make things look like something they're not - we're making solid fibreglass look like wood! The boats will be added to the cabling system ready to transport people along the Lazy River when *Islands* opens."



## SULAWESI

As you cross the Lazy River, over the magnificent Rock Bridge you'll enter the last island on your journey...

# SULAWESI.

Black rocks mark the terrain of this island which is rife with volcanoes and rich in unique wildlife.

### TANGKOKO RESERVE

Once on Sulawesi you'll enter the Tangkoko Reserve, home to the critically endangered Sulawesi crested macaque.

The macaque is one of the most affectionate monkeys on the planet. Individuals maintain relationships by grooming one another, they communicate with grunts and you can spot them smacking their lips in greeting.

In the past 30 years it is believed that the populations in the wild have decreased by more than 80% due to habitat loss and hunting. There are thought to be around 5000 macaques left in the world, 2000 of which live in the tropical rainforest in north Sulawesi, making it a particularly important region for conservation!

There are a number of villages close to the forest, some of the local people have direct access to the coast but others rely almost entirely on the forest for income and food.

The hunting of macaques for bush meat is a major threat to this species; their meat is considered a delicacy and is especially sought after for celebrations.

We are working with the Tangkoko Conservation Education project which aims to protect the beautiful wildlife in Sulawesi, especially the crested macaque. Increasing awareness of the local macaque population is the main priority of the programme due to the lack of knowledge about the many

different animals and plants in the region. On top of that the project aims to empower and educate them on how they can protect their wildlife.



The Sulawesi crested macaque sculpture carved out of redwood (with sculptor Simon O'Rourke)



## CARVING OUT a BIG ask

We commissioned sculptor Simon O'Rourke to carve a Sulawesi crested macaque out of wood for the *Islands* project. It has a coin run as a fun way for people to donate to our conservation work during their visit and is an interesting photo opportunity too!

We caught up with Simon to hear about the process for producing a unique piece of art for *Islands*.

### Why did you choose to carve a macaque?

We had lots of discussion around what would make a good piece and the macaque was the obvious choice given where it will be placed. You will also see it is a group of macaques to give points of interest at different heights. It also reflects that macaques are social animals.

### Which wood did you use and why?

We went for Redwood in the end because of its rich colour, and then burnished the macaque sections to give them their jet-black sheen. Redwood is also less prone to splitting.

### What were the challenges you faced?

Getting the coins to roll down the sculpture correctly was a bit of a challenge, but it had to be right as the sculpture is essentially a donation point. Things also changed a lot so keeping up with the latest ideas kept me on my toes.

### How long did the carving take?

The carving took four days in total and the whole process was captured on timelapse so you can really see the sculpture take shape.

See the timelapse at [www.chesterzoo.org/islandscarving](http://www.chesterzoo.org/islandscarving)



Manado town  
Why not try some Indonesia  
food in the street kitchen

### Street Kitchen

If you've been lucky enough to travel to South East Asia  
you've probably come across street food.

# MANADO STREET KITCHEN

Street food takes many different forms from ordering from a cart, shop or even somebody cooking on a small outdoor stove. However the kitchen is set up, the basic principle is the same: your food is cooked to order, usually over a fierce flame or wok. It's the principles of street food which we want to adopt in Manado Street Kitchen so it fits into the *Islands* storyline. The idea is that a customer will order and pay for their food, see it being prepared in a theatre-style kitchen and, once cooked, enjoy it outside in one of the six seating areas.

## Behind the scenes... Telling the stories behind the products... *Islands* shop.

Like the visitor embarking on *Islands* Alison Brooks and the retail team have been on a journey of their own finding stock for our new shop. Alison takes up the story...

A lot of stock in *Islands* has a fantastic story behind it and it's been a real pleasure finding items and learning about these amazing stories. When we started to search for goods our remit was to find items made in South East Asia.



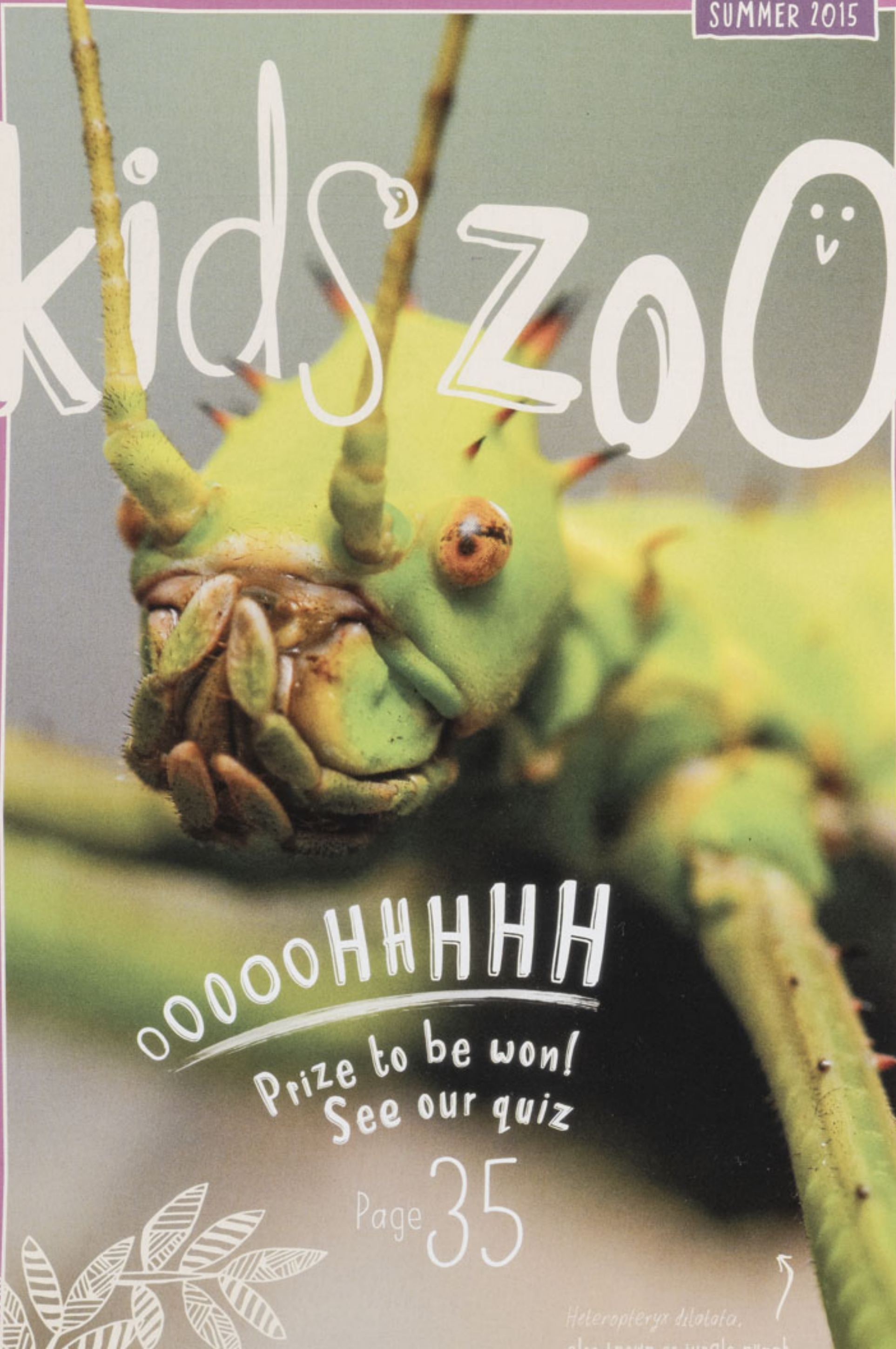
One of our suppliers searched the length and breadth of South East Asia finding items that would fit into the *Islands* storyline. They found lots of beautiful items including one of my favourites - wood carvings of the Bali starling. These fantastic carvings have been hand made by a man in Bali. He's lovingly sculpted each one in his workshop, creating beautiful bespoke birds. Another one of my favourites, again made in Bali, are the bamboo sun hats. These hats (pictured above) can be closed down to become a handy fan. We've also created a design-led range of stationery based around the Bali starling.



This fantastic collection is stunning and includes cards, diaries and notebooks. It's the first time we've commissioned our own range and I am delighted with it. We will, of course, be stocking one of our best sellers - the cuddly toy - and we have had four toys designed to complement our current range. You can see these cuddly creatures, as well as the rest of our new range of items, on display in the *Islands* shop.

SUMMER 2015

# kids' zoo



OOOOOHHHHH

Prize to be won!  
See our quiz

Page 35



Heteropteryx dilatata,  
also known as jungle nymph

# Events 2015



## **HOW TO BE A GOOD ZOOKEEPER! THURSDAY JULY 23RD**

This is a unique opportunity offered to junior members to spend a day working alongside a zookeeper. The work can be tough and demanding so we strictly limit this event to those juniors of 12 years old or over. We try to match juniors to their favourite section, but places are limited so this cannot be guaranteed. Please arrive prepared to work hard, with clean wellies and an additional completely clean set of clothes to work in.

Owing to the zoo's biosecurity measures, it is important that the clothes you wear to work on the sections have not been in contact with any farm animals, or even your pets at home, since they were last washed.

We will meet outside the Oakfield House at 10.30am, and the day will finish for juniors at 4.00pm. Please bring a packed lunch. Also please note that bookings for this event will not be taken before 9.00am on Thursday 9 July 2015, (01244 650215) and will be strictly on a first-come, first-served basis.

## **JUNIORS' SUMMER BARBEQUE THURSDAY AUGUST 6TH**

This is your opportunity to be in the zoo when there are no other visitor noises to distract you and the animals. We usually aim to have a speaker to chat to you or to engage in craft activities or zoo tours during the evening, but you can be sure to find it relaxing.

We would like to invite children aged eight and over to join us for a 7.00pm start, when you should arrive at the main entrance. Parents are asked to collect juniors from the main entrance at 9.45pm please.

## **THE JUNIOR MEMBERS' SUMMER SCHOOL FROM AUGUST 10TH-14TH INCLUSIVE**

Please note that the two week booking rule does NOT apply to this event and EARLY BOOKING IS ADVISED. The summer school is open to juniors aged 13 and above. Participants must be able to attend all five (full) days and the cost will be £190 for the week.

A full programme of events for this action-packed, informal week will be issued nearer the time, but essentially the summer school will encompass a wide variety of theoretical and practical training including a mid-week field trip, live mammal trapping, tours of the zoo, and talks from a variety of zoo staff.

## **SHUGBOROUGH HOME FARM SATURDAY SEPTEMBER 26TH**

Shugborough is a beautiful stately home in Staffordshire and autumn is a perfect time to visit their Home Farm to see the rare breeds and shire horses. Home Farm also has wonderful displays of cheese making and old-time bakery skills.

Eights and over are invited to join us for a relaxing day. We will leave the Cedar House car park at 9.30am and return home for 5.00pm. Bring a picnic.

## **BLACKPOOL ZOO SATURDAY OCTOBER 24TH**

It's always great to visit other zoos and to see how they do things. We plan to have a guided walk so that we don't miss any of the highlights and juniors should have an excellent day.

Over eights are invited to come along and enjoy the day, and we will leave the Cedar House staff car park at 9.30am and return there for 5.15pm. You will need a picnic lunch and to dress up warmly.



**BURTON MERE WETLANDS – THE RSPB  
RESERVE ON THE DEE ESTUARY  
SATURDAY NOVEMBER 21ST**

Burton Mere Wetlands is a magnificent mosaic of wetlands and beautiful woodlands and is perfect if you are new to bird watching as the entire reserve has been designed to get you closer to nature. Many scarce migrant birds have been seen in previous years, including little stints, green, curlew and wood sandpipers. We will have a guided walk which should be excellent!

The bus will leave the Cedar House car park at 11.00am and return for 4.00pm. 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 DECEMBER 4TH**

Our annual bash welcomes juniors of eight and over to enjoy an evening of games, disco music and a great hot-dog and beef-burger 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 7.00pm, 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 at the zoo on 01244 650215, not more than two weeks before the event you would like to attend (except the junior members' summer school which is now fully booked). 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 junior 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.

To be in with a chance of winning a £10 voucher to spend in the zoo shops, send your entry together with contact details to:

Z magazine, Media Department, Chester Zoo,  
Upton-by-Chester, Chester, CH2 1LH  
by Friday August 1st.

# stick insect

## quiz

1. How many legs does a stick insect have?

4    6    8

2. How do stick insects camouflage themselves against predators?

Leaves    Fruit    Stick

3. To escape a predator what may a stick insect do?

Play dead  
 Lose a limb  
 Look like a stick

### Stick Insect fast facts: Did you know...

Young stick insects shed their skin around 6 – 9 times before reaching adulthood.

When a stick insect sheds its skin, it grows but as it has a rigid outer skeleton (skin) it means it can't grow in between moults.

After a stick insect moults, it will often eat its own leftover skin!

OOOOHHHHH  
Congratulations to  
our previous winner

Lily Bainbridge  
from Great Sutton

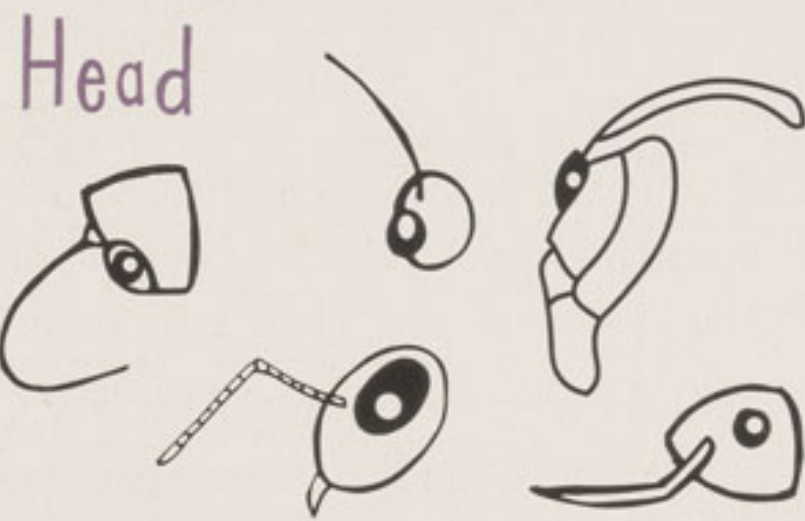
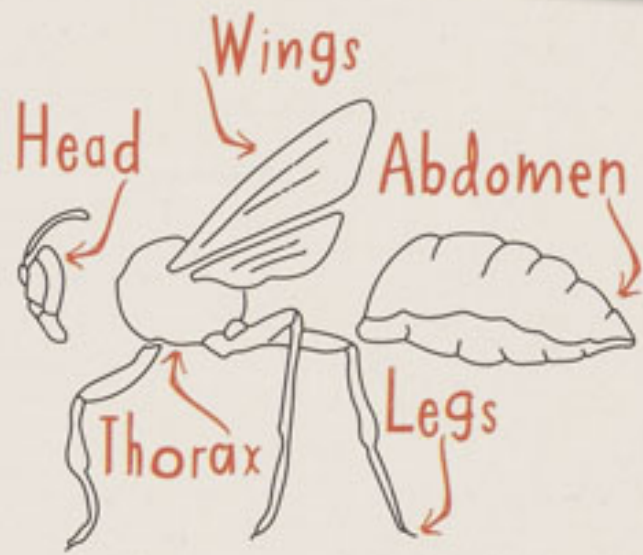


# Design your own bug...

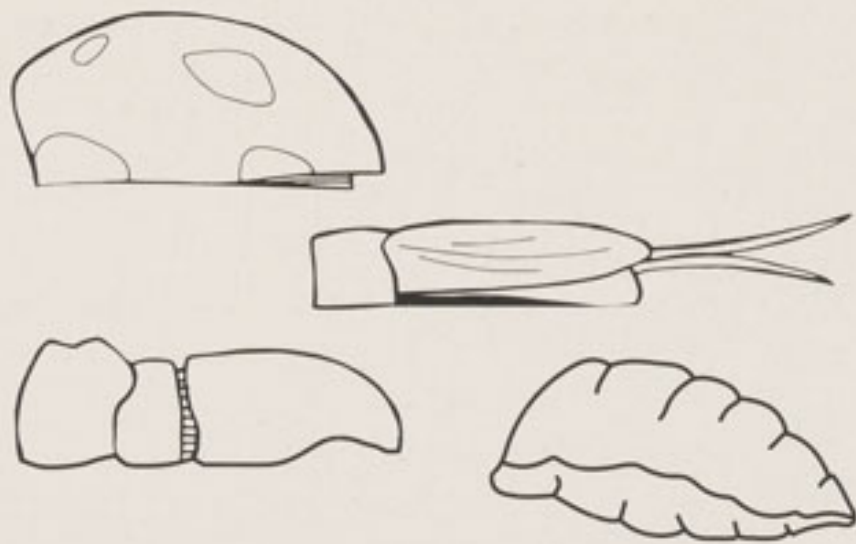
Select one body part from each box.

## YOU WILL NEED:

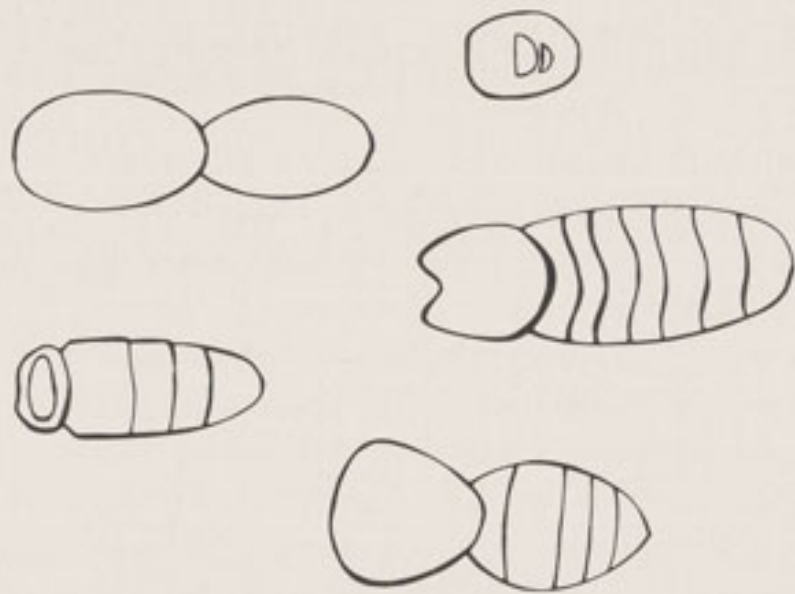
paper, pencil and of course your imagination.



## Abdomen



## Thorax



## Legs



## Wings



2015 SPRING  
PROGRAMME

JULY - DECEMBER

# Let's Talk...

We hope you'll find the following talks interesting and enjoyable. They're planned to bring you up to date with the work your membership supports.

## Assam Adventure!

THURSDAY JULY 16TH

In February a team of staff took part in an expedition visiting our Assam Haathi Project, which is run in partnership with EcoSystems-India, to work closely with local villages in areas of human-elephant conflict in India. Over the space of two weeks the group delivered a range of workshops in the villages on topics ranging from bee keeping and animal health to basic electrics. Come along to hear first-hand how they got on!

## Does Conservation Work?

MONDAY SEPTEMBER 7TH

**Dr Simon Stuart:** With so much doom and gloom in the media about the loss of species and habitats, the question is increasingly being asked: does conservation work? Sceptics are arguing that, because the situation is deteriorating and nothing seems to be able to stop this, it does not make sense to do what conservationists are asking for: to increase investments in conservation and to tighten environmental safeguards. However, up until now there has been no serious measurement of how effective conservation is. What would happen if we suddenly stopped doing conservation? Recently a team of researchers in IUCN's Species Survival Commission have developed a new methodology to answer this question. Their results are surprising. They show that, not only is conservation very effective in many places, but also that the main problem with conservation is simply that we do not do enough of it.

## Act for Wildlife

THURSDAY OCTOBER 1ST

Our annual update on our field programmes with our conservation team. More information in future editions of Z!

## Spotlight on Democracy in Conservation

THURSDAY NOVEMBER 19TH

To tie in with Parliament Week 2015, we're joined by Baroness D'Souza Lord Speaker in the House of Lords as part of the Parliamentary Outreach Service events. The talk will look at the work of the House of Lords and how it addresses conservation issues.

## Populating Islands

DECEMBER  
(DATE TO BE CONFIRMED)

**Tim Rowlands:** Just how did we move the zoo's animals into *Islands*? His fascinating talk will let you in on the trials and tribulations!

## Interested in attending?

Please call Kate in Education on 01244 389444  
or email [k.branksin@chesterzoo.org](mailto:k.branksin@chesterzoo.org)  
Booking essential.

## Looking to extend your expedition...

Sykes Cottages have lots of options for you to choose.

Take a look at  
[sykescottages.com](http://sykescottages.com)  
or call the team  
on 01244 352252.



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## Members' Talks:

held in the Geraldine Russell Lecture Theatre (near main entrance off the A41), start at 7.30pm and:

- are free to members (please bring your membership card and or welcome letter)
- we offer a special rate of £2.00 to adopters
- members of the public and guests are welcome (£3.50 for non-members)
- our Lecture Theatre seats up to 170
- post-talk refreshments give you the opportunity to have an informal chat with speakers, zoo staff and fellow members



Back in May, we lost our dear friend, June Williams. As many of you will know, June was the daughter of our founder George Mottershead.

In 1930, aged just four and a half, June moved to Oakfield House with George, mum Lizzie and sister Muriel. From there, in the face of stiff opposition, George's vision of opening Chester Zoo became a reality.

In 2010, June gave her blessing to the BBC One *Our Zoo* series and went on to give invaluable support to the team as it developed. She became one of the *Our Zoo* family; incredibly close to the cast, June was welcomed on set with open arms.

This culminated in a cameo role and it amused June that she took on the role of one of the zoo's objectors – a group she and her family had faced in those very early days.

In the *Our Zoo* book that followed, June told how she had been pleased that the series had enabled her to continue raising the zoo's profile. *Our Zoo*, she said, had given her a new lease of life.

Until very recently June was a familiar face in the zoo, visiting frequently. In June's passing we have lost a great friend and ambassador and we are sure you will join us in expressing our deepest sympathies to her children, George, Joy and Linda, and her two grandchildren, Adam and Emma, of whom we know she was very proud.

Don't Miss!  
ADOPTER DAYS  
Sunday October 4th 2015

MEMBERS' DAYS  
Friday September 11th 2015  
Sunday November 1st 2015

## CHESTER ZOO "100 CLUB"

WINNERS OF THE RECENT PRIZE DRAWS WERE:

### JANUARY 2015

- £100 Mrs Kim Metcalf, Chester
- £100 Mrs Tracey Pritchard, Deeside
- £50 Mr Mark Cleave, Chester
- £50 Mrs Rose Tonkinson, Ellesmere Port
- £50 Miss Andrea McKeivitt, Wirral
- £50 Mr Richard Watson, Welshpool

### FEBRUARY 2015

- £100 Miss Carena Graham, Chester
- £100 Mrs Helen Baldwin, Liverpool
- £50 Miss Susan Tissyman, Waterloo
- £50 Ms Judith Irving, Birkenhead
- £50 Mrs Marilyn Knowles, Flintshire

### MARCH 2015

- £100 Mrs Valerie Daniels, Tameside
- £100 Mrs Sandra Soul, Northwich
- £50 Ms C J Reynolds, Malpas
- £50 Mr K Hodgkiss, Crewe
- £50 Mrs D Duffy, Liverpool
- £50 Ms Elizabeth Trent, Merseyside

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.



Chester Zoo, Upton-by-Chester,  
Chester, CH2 1LH  
Tel: 01244 380280  
Email: [info@chesterzoo.org](mailto:info@chesterzoo.org)  
[www.chesterzoo.org](http://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

