



# Zoo Life

Winter 2000 - Issue 4

CHESTER ZOO'S MAGAZINE FOR MEMBERS AND ADOPTERS



Inside this Issue: Another Baby Elephant • Penguin Rescue • China Twinning • Brian Blessed

## From the Director's Desk

Professor Gordon McGregor Reid



### YET ANOTHER BABY ELEPHANT

Imagine our surprise and delight when Asian elephant *Thi-Hi-Way* gave birth to a healthy male calf four weeks ahead of schedule! The baby was produced at dawn on Saturday 7 October and instantly responded to *Thi* and began suckling. This makes six calves successfully fathered by our bull *Chang*, the baby has been named *Assam*. Many thanks are due to the team of keepers, veterinary surgeons and curators who have made all of this success possible (picture pages 14 and 15).

### BRIAN BLESSED

The first phase of the National Elephant Centre at Chester Zoo was officially opened in August by Brian Blessed – actor, mountaineer, conservationist and newly appointed United Nations Ambassador for Animals. Brian has a warm, outgoing personality, and he made the occasion very lively and enjoyable. He has a particular interest in elephants, and as the photograph on page 6 shows, he really enjoyed meeting the Chester herd!

### PANDA PROGRESS

Between 1st and 7th October, we were glad to host a visiting team of senior Chinese curatorial, veterinary and technical staff from the Chengdu region, Sechuan Province. They came to discuss the

Chester Zoo Life is published by the  
North of England Zoological Society.

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prospects for developing a joint approach to the conservation in nature of Giant Pandas and other critically endangered Chinese animals. Chief Curator Chris West and his team kindly facilitated the discussions, which also involved members of staff at the Veterinary Faculty of the University of Liverpool at Leahurst Hospital and colleagues from other universities in the north west. The visit was a great success and it ended with the signing of a tripartite Memorandum of Agreement on priority conservation activities between Chester Zoo, Chengdu Zoo and Chengdu Giant Panda Breeding base (full story and pictures, p11).

### KEEPER FOR A DAY

One of the most successful grass roots initiatives during the year has been the 'Keeper for a Day' scheme. This idea – and all the work involved in carrying it through – came from the keeping staff. The money raised provides a fund for overseas travel for keepers to help with field conservation programmes and to increase their knowledge and experience. Over 100 people have taken part in the scheme, and have enjoyed a unique day learning about the Zoo's work (see pages 12 and 13 for pictures of some of the participants). Energetic Team Leader Andy Lenihan has been responsible for much of the administration, and very many enthusiastic keeping staff have been involved in ensuring that the amateur keepers have a memorable day and get excellent value for money.

### BVA CONFERENCE

The British Veterinary Association chose Chester Zoo as the venue for part of their Annual Congress in September. It was good for our staff to meet with so many enthusiastic professionals and to share ideas and experiences. Chief Curator Chris West made a thought-provoking

presentation on 'The conservation role of the modern zoo and the contribution veterinary surgeons can make.' Chris called for the establishment of a Department of Conservation Medicine in a Veterinary College: 'If veterinary surgeons and students aspire to a role in conservation and the environment, then we must ask some searching questions about the breadth of veterinary education.' Other speakers, covering a wide range of subjects, were Alan Humphreys, Professor John Cooper, Mark Evans, Pat Wisniewski and William Wildgoose.

### RECORD VISITOR NUMBERS

In this column one year ago, I wrote on how good it was to end the 20th century with the highest number of visitors for 21 years. So it is a great pleasure to report that we have started the 21st century with even higher numbers! The exact year-end figures are not yet available, but are presently expected to exceed one million and be 7% up on 1999. There are, of course, many reasons for this continuing success; a steady rise in visitors and the corresponding rise in our income over the last few years has enabled us to improve existing features and build new, innovative and exciting animal habitats. The number of high profile baby animals this year has likely also been a prime reason for the upsurge in visitors. The timing of *Po Chin's* birth, just as the schools broke up in July, was superb! Now, with a third baby on the expanded elephant island, we should have a good winter season and be off to a cracking start for next Spring.

### HAPPY CHRISTMAS!

Our seasonal activities are well underway, with Head of Visitor Services Liz Child and her team working flat out. Father Christmas is once again in residence in his *Twilight Zone* grotto. The Oakfield Restaurant is full of appetising aromas of turkeys roasting and puddings steaming ... so do pop in for a bite to eat. On behalf of the Council and Staff, I wish you all a very merry Christmas, and hope that 2001 is a happy and prosperous year!

Front cover: Elephant calf photograph courtesy Viewfinder Pictures, Chester. Brian Blessed photograph by Forever Portraits. Penguin Chick by Pat Cade.

# Notice Board

Update your diary with the following events

## MEMBERS' MEETINGS

Saturday 20 January –  
2.30 pm in Lecture Hall  
*Professor Michael Hitchcock, Director, International Institute for Culture, Tourism and Development. 'Here be Dragons'.*  
Prof. Hitchcock is an expert in eco-tourism, with a particular interest in the Komodo Dragon. In 1991, Komodo became a World Heritage Site and to-day the authorities have to balance the needs of conservation, international tourism and regional development in one of Indonesia's poorest regions.

Saturday 17 February –  
2.30 pm in Lecture Hall  
*Mr Glyn Davies*  
**'Bushmeat in the Gola Forest, Sierra Leone'**  
Glyn Davies is a Hon. Research Fellow at the University of Kent and has lived and worked in the rainforests of many Old

## WILDLIFE TRIPS

There are still a few places on the two exciting and exotic trips planned for 2001.

### MAURITIUS

In May there will be a trip to Mauritius and Rodrigues to see some of the world's rarest birds as well as the endangered Rodrigues fruit bats. Booking forms were included with the Autumn magazine, but if you would like another one, or would like more detailed information, please ring James Andrewes on 01244 650258.

### KENYA

This is a special 12 night trip to see Chester Zoo supported activities. The Zoo is a major sponsor of the Kenya Wildlife Service's Black Rhino Translocation Programme at Tsavo, and this trip will give the opportunity to see at first hand what may be the best chance for their survival in East Africa. The dates are 1 – 12 July. Contact Vicky Stirling, Farside Africa, 54 Parma Crescent, London SW11 1LT. Telephone 020 7223 9528. Email: vicky@farsideafrica.com Website www.farsideafrica.com

World countries. His academic work has been mainly on primate ecology and he now works with international development agencies focusing on use of natural resources to underpin sustainable development. His talk will highlight the concerns shown in Gordon Reid's article in the last issue of Zoolife, and the report by Niall Ormerod on the London conference on this subject, on page 16.

Saturday 17 March –  
2.30 pm in Lecture Hall  
*Stephanie Wehnelt* –  
**'Enrichment – It's more than just toys, it's animal welfare!'**

Stephanie is the Zoo's Research Officer, and her particular interest is the welfare of the animals in the Zoo. Her talk will discuss techniques of environmental enrichment, including well tried and established ideas, as well as some innovative and ingenious ones devised by the keeping staff.

APRIL – Still to be arranged.

Saturday 19 May –  
2.30 pm in the Lecture Hall  
**Annual General Meeting followed by Zoo Review**

Gordon McGregor Reid, Chester Zoo's Director, together with the Heads of Division for Animals, Finance, Marketing, Visitor Services, Education, Estates and Personnel, review recent and future developments in the Zoo.

## FAUNA & FLORA INTERNATIONAL

The details of the Spring programme of meetings were not finalised as this magazine went to press. Anyone interested in the next dates and speakers is invited to ring Penny Rudd at the Zoo on 01244 650215. FFI meetings are open to everyone. They are held in the Zoo's lecture hall, starting at 7.30pm. Tickets are £6.00 for FFI members and £6.50 for non-members. This price includes wine and a light buffet.

## LONDON ZOO

Earlier this year a reciprocal membership arrangement was agreed with Bristol and Edinburgh Zoos, allowing free entry to these collections with your Chester Zoo membership card. This scheme has now been extended to London Zoo and Whipsnade Wild Animal Park. So for the modest cost of a Chester Zoo membership, you can now visit five of the country's leading collections as often as you wish, throughout the year!

If you ever go across the sea to Ireland – Your Chester Zoo membership card will allow free entry to Fota Wild Animal Park in Carrigtwohill, Co Cork.

## Chester Zoo 100 Club

The winners of recent monthly prizes are:

August	
£100	Mr. George Hooke, Chester
£100	Miss Julie Haines-Adams, Oswestry
£50	Miss Angela Nolan, Liverpool
£50	Mrs. Ruby Dryland, Chester
£50	Mr. S. Hamlett, Wirral
September	
£100	Mr. George Hooke, Chester
£50	Mrs. Molly Bryceson, Chester
£50	Mrs. Judith Beastall, Bromborough
£50	Mrs. Laura Haddock, Ellesmere, Shropshire
October	
£100	Mr. Michael Batchelor, Wilmslow
£100	Mr. David Lloyd, Leamington Spa
£50	Mrs. Linda Taylor, Rochdale
£50	Mrs. Phyllis Keay, Chester
£50	Mr. K. Parks, Burscough

## LEGACY PLEDGE CLUB

We were extremely pleased recently to hear that Chester Zoo had been left a bequest in the will of the late Kathleen Procter.

Ms Procter instructed that a portion of her estate should '... be applied in furthering the conservation of endangered species of animals kept at Chester Zoo'.

Remembering the Zoo in your will is a marvellous way of supporting wildlife conservation and ensuring that the work of Chester Zoo continues long into the future.

Members of the Legacy Pledge Club recently met with Brian Blessed for tea after the opening of the first phase of the Elephant Development in August. To join the Club, simply let us know in writing that you have mentioned the Zoo as a beneficiary in your will. If you are still thinking about making a will, we can provide contacts who will give you professional, confidential and impartial advice. For more information, please contact Hazel Russell at the Zoo on 01244 650229.

# Zoo Review



## First Dip

THE newest addition to the penguin colony is Neal (left) – hatched in the Summer, and hand reared by keepers.

Penguin chicks are covered in a grey down when hatched – and until their feathers come through, they are not waterproof. There is a nursery pool where chicks can gradually get used to shallow water before literally taking the plunge with the 'big boys.' Neal's first dip was seen by thousands of viewers on Granada's early evening news programme.

### A 'Chester Character'

BERNARD Wall is a Chester City Guide, who has spent his 12 retirement years writing a very popular series in the *Chester and District Standard*. His articles describe his views on past events and modern developments in the city. Bernard has just published a new book called *Chester Characters* which starts with Agricola in 79AD, takes us through the Saxons, Normans, Middle Ages, Tudors, Stuarts, Georgians and Victorians – to finish with a profile of George Mottershead, founder of Chester Zoo! This describes the early days of the Zoo and how, in 1930, George and his wife Elizabeth bought Oakfield, Upton, with its mansion, extensive stable block, gardens and nine acres for just £3,500! The book is very reasonably priced at £5.99, and is available in the Zoo shops or at Bookland in Chester.

### None of our penguins is missing!

A NUMBER of phone calls from radio stations and newspapers led to a head counting exercise at the penguin pool! Several people reported that a penguin had been sighted on the riverbank in Chester, and the assumption was that it must belong to the Zoo! Andrew Bagnall, Penguin Section Team Leader, knew that none of his colony could have walked across the Zoo and out of the gate – but with the remote possibility that one could have been stolen overnight, he organised a penguin parade. Finding no gaps in the feathered line-up, he drove off to inspect the rogue bird. Sitting on the bank, sharing food with picnickers, was a - cormorant!



MEET the majority of the squad who helped the Chester Zoo football team finish fourth in this summer's seven-a-side league, played at the local County Offices ground. In a series of 18 games, the team conceded only seven goals, leaving it with the second best defensive record of the 40 teams taking part.

*Back row, from left:* Barry Grain, Steve O'Brien, Mark Pilgrim, Marc Boardman, Darren Paech, Nick Young, Steve Rowlands.

*Front row, from left:* Richard Johnson, Jason Boyer, Daniel Boardman, Tim Rowlands, Leigh Berkeley, Paul Morris.

## Keeper Makeover



▲ Belinda (left) and Leanne show their new images to an inquisitive giraffe!

BEING a zoo keeper may have lots of job satisfaction – but it could not be described as the most glamorous job in the world for a woman!

In September, two of our keepers had the chance to change their wellies and green sweatshirts for something rather more feminine, when they were invited to take part in a 'make-over.' Leanne Lowton, from the bird section and Belinda Porter who works in the giraffe section, bravely agreed.

Staff from the hairdressing company 'Ian Henry', collected the girls and took them to the Chester salon, where they were given new hairstyles. A make-up session followed, and then a choice of outfits for the photography session. Back in the Zoo, the giraffes and camels showed very little surprise at the unfamiliar dress style. As long as Belinda was carrying a bucket and not a handbag, they really weren't interested!

## It's All Relative!

Niall Ormerod, Specialist Keeper in the Ape section, received this story from America, which he feels truly depicts our kinship to our forest cousins:

One day an ape escaped from the Bronx Zoo. They search for him everywhere and announced his disappearance on television, radio and the press. At last, he was found in the New York public library and the zoo animal handlers were summoned. They found the ape sitting at a desk with

two books spread out in front of him, reading with great concentration. One book was the bible; the other was written by Darwin. The zoo keepers asked him what he was doing. The ape replied 'I'm trying to figure out whether I am my brother's keeper or my keeper's brother'.

## Staff News

### Welcome –

To Sue Watson, who joined the Marketing and Development team in October, to help with membership and adoptions. Sue recently worked at Chester Racecourse, and she has also worked abroad for a number of years while following her husband's army career.

### Farewell –

To Jason Sheridan from Education Division. Jason has returned to school teaching and we send him our best wishes for the new job.

### Warm Congratulations –

To Rhino Team Leader Charles Mackenzie on his marriage in September to



▲ Charles and Katherine

Katherine Humphreys. Charles is one of the longest serving members of staff – he has been at Chester Zoo for 30 years! Katherine and Charles held their reception in the Oakfield Restaurant at the Zoo, with an amazing animal-themed wedding cake. Instead of the traditional bride and groom on the top tier, this one had a pair of rhinos!

## GREAT GARDENS

FOLLOWING the Zoo's Silver Medal at the RHS Show at Tatton (see Zoo Life Autumn 2000), our talented horticulturists have picked up more awards. The RHS garden called *Islands in Danger* was recreated for the Southport Flower Show, where it won a Gold Medal. The Zoo once again was awarded the trophy for Best Large Tourist Attraction in the North West in Bloom competition and received a special award in the Chester in Bloom competition. It's been a very successful year of hard work and creativity by staff in Horticulture and Botany in co-operation with the Amenities and Gardens Department.



DID you go abroad on holiday this year? If so you will probably have some foreign currency left over. We would be grateful if you bring it with you on your next visit and drop it into the box in the elephant house. Used postage stamps, phone cards and ink cartridges are also useful. Friends of the Elephants have raised £21,000 through the recycling of these items. As *Chang* has proved – small contributions can add up to something very big!

**B**RIAN Blessed, actor, mountaineer and conservationist, visited the Zoo in August to officially open Phase One of the National Elephant Breeding Centre. This includes the new paddock – twice the size of the old one – the fountain and pool, the reed bed and Chang's bull pen.

As well as being one of Britain's most well-known actors – having starred in *Z Cars*, *I Claudius* and numerous Shakespeare productions – Brian is also a very keen mountaineer. His love of animals and his keen interest in conservation was recognised just prior to his visit to the Zoo, when it was confirmed that the United Nations had appointed him as their new Ambassador for Animals.

Brian lives with his wife, actress Hildegard Neil, in Surrey with numerous chickens, ducks, dogs, cats and ponies. Most of them are rescue animals – he says he works just to keep them all fed!

On the day of the opening, Brian had a 'one-to-one' with the elephants and signed copies of his books for the keepers. During lunch Brian kept everyone enthralled with his tales of Everest and of his experiences with many different dangerous animals – on and off the stage!

At the official opening ceremony, Brian spoke to the invited guests and zoo visitors about the plight of the



▲ Brian makes a very close acquaintance!

*'The best Zoo I've ever been to!'*

**Hazel Russell reports**

Asian Elephant. He said he was surprised to learn that within as little as 50 years the Asian Elephant could be extinct and agreed that the work being undertaken by Chester Zoo is of

paramount importance in conserving this magnificent animal for our future.

He needed no microphone for his talk, of course – no-one had trouble hearing his distinctive voice and even the elephants came over to see who was making all the noise!

After afternoon tea with some of the Zoo's Legacy Pledge Club members, there was a tour of the site of the new *Spirit of the Jaguar* exhibit. This is growing by the day and is on course to be finished in Spring next year – at the same time as the launch of the new 'baby-jag' at Halewood.

Before Brian returned to London, the Director and Chief Curator gave him a short tour visiting the giraffes, chimpanzees and the Twilight Zone.

It was a very long day, and we are extremely grateful that Brian found time in his busy schedule to come. He said that he thought Chester was the best zoo he had visited and hoped that he would be able to come again soon.

**Whilst here Brian kindly agreed to become part of the London Contact Group for the 'Save the Asian Elephant Campaign' which is being co-ordinated by the Development Office at the Zoo and we hope this will be the start of a long and fruitful relationship with him.**



## ENVIRONMENTAL ENRICHMENT

*In recent issues of Zoo Life, keepers from various sections have described the methods and often ingenious ways they provide enrichment for the animals in their care. This time we feature the Twilight Zone.*

*James Andrewes, Vicki Powell and the Twilight Zone staff write about the environment of the bats.*

SINCE it opened two years ago, the *Twilight Zone* has been enormously popular and exciting from the public's perspective. But even more important is how this exhibit has enriched life for the bats. This article addresses some of the enriching features and techniques employed in the *Twilight Zone* and unless otherwise stated applies to the Rodrigues Fruit Bats.

One of the main components that enrich the bats' lives is the spacious environment in which they live. The free-flight area provides the potential to undertake prolonged flights while they are foraging, which in turn improves their physical condition. Over the last two years we have noticed a decrease in the bats' weights, bringing them in line with wild bats. It also provides them with a better opportunity to develop a naturalistic group structure, especially given their territorial nature.

The *Twilight Zone* has been designed to provide conditions as close to the natural environment as possible. Within this increased space we have constructed a three dimensional matrix of trees, bushes, creepers, vines and rock faces. This enables the bats to clamber around on an irregularly shaped, textured framework, thus exercising their muscles and increasing their agility. Branches that move in unexpected ways require the bats to use their muscles more fully when they land and climb and help them to develop natural balance and co-ordination skills. Branches which bend slightly under a bat's weight can achieve this effect, as can more sturdy branches suspended by a single point, so that they twist and swing as the bats climb around searching for food.

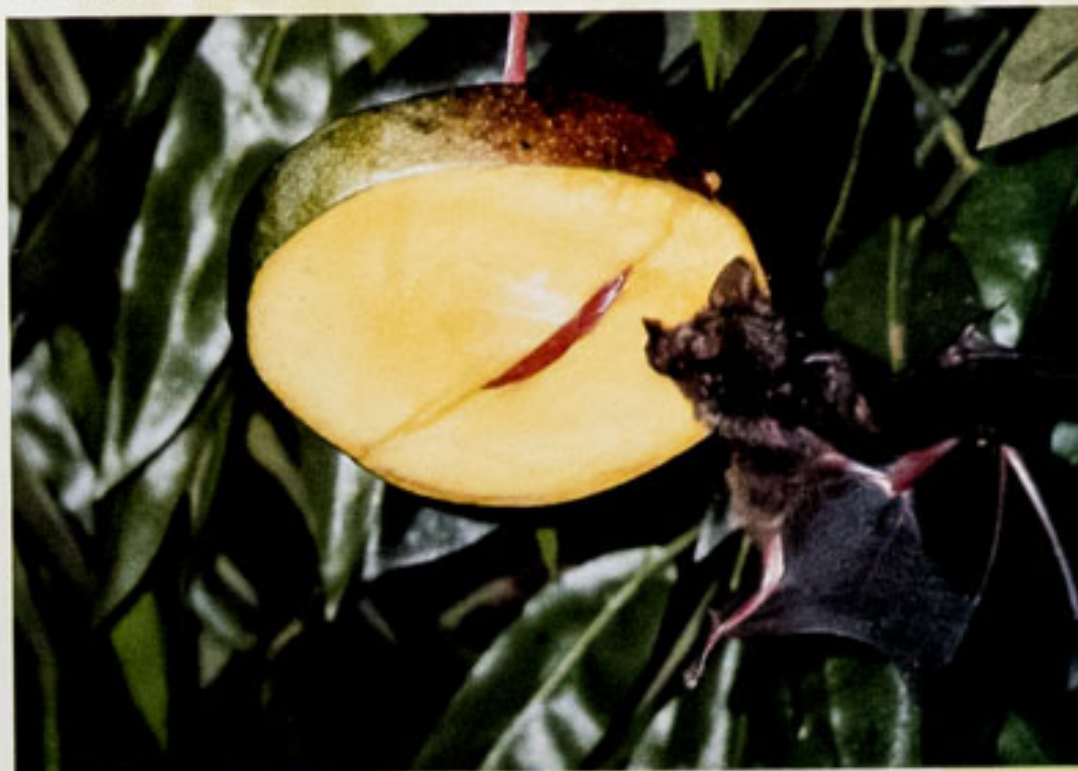
Food is a very important enrichment tool. The size and layout of the enclosure, containing, as it does, many full sized trees, allows presentation of food in a very natural manner. Rather than eating chopped fruit out of dishes, the bats now forage over a wider area and encounter much larger pieces of fruit, which they must manipulate. Much of their diet is presented whole and is distributed throughout the exhibit, either

suspended from, or spiked onto, tree branches and creepers, simulating how the fruit would appear in the wild. The distribution of food items is changed regularly so as to emulate the spatial variation of ripening fruits in the tropics. Food is put out at different times on several occasions each day to prevent the animals becoming accustomed to set routine feeding times.

Much of the above applies also to the Seba's short-tailed bats (with the exception of the references to climbing). However, an additional feature, which seems to provide some enrichment, is the presence of people in the exhibit. These bats are extremely inquisitive and the constantly changing environment in terms of sight, sound, smell and moving objects appears to provide them with extra stimuli.

We hope this provides you with some insight into the ongoing process of enrichment for our bats and that it gives you a few things to look out for on your next visit to the *Twilight Zone*.

▼ A tiny Seba's Bat hovers underneath a mango slice.



▲ A Rodrigues Fruit Bat works out the best way to hold and eat a carrot.



## Penguin Pick-Me-Up

In June this year, a Panamanian bulk iron ore carrier sank between Dassen and Robben islands, Western Cape, South Africa. These islands support about 40% of the world population of African penguins, a species classified as 'vulnerable to extinction'. The spill occurred at the worst possible moment, in the middle of the penguin breeding season. Over 20,000 birds were affected and the South African National Foundation for the Conservation of Coastal Birds sent out an urgent appeal for help – particularly for experienced penguin handlers who could supervise teams of volunteers.

Chester Zoo responded by sending Penguin Keeper, Karen Davies. This is her account of the trip.

◀ *Telling the world. This sign was erected to let the local people know what was happening – and to ask for the co-operation of surfers.*

**W**HAT would you do if your boss asked you to take an all expenses paid trip to South Africa? Of course, I said 'Yes please – when and where?'

This trip was no holiday, but to help rehabilitate the penguins covered in oil from a tanker spill off the coast of Cape Town. My two problems were that I had no passport – and I had never flown before. To be honest, I'd never really wanted to fly. But two trips to Liverpool sorted out passport and injections, and the flight was OK, apart from my first taste of airline food. Could have been better!

### In at the deep end!

I was met by Aslam, one of the project drivers. He delivered me to the hotel, and gave me 45 minutes to wash and change for work. I had now been awake for more than 24 hours! It was a 15 minute drive to the old railway yard where the penguins were being held. What a sight - and what a smell – hit me as I got out of the car. I had never seen so many thousands of penguins. There were 18 pens full of birds and lots of people in yellow oilskins. In fact there were over 19,000 birds. They had all been washed, but now needed feeding and swimming each day to get them back into good condition for

release back into the wild. Every volunteer had an allocated job, including cleaning pools, raking sand, washing and cleaning the fish, feeding and swimming the birds. Each job in the chain was of equal importance. My job was supervising feeding. This wasn't like my daily job in the Zoo with 37 birds. I had to make sure that 6,000 birds were fed with at least three fish every day. Luckily, I had a team of 20 helpers.

### Early Start

The day started around 7.30am,

checking stock and setting up feeding boxes. These boxes were wooden, with upward sliding doors front and back. They were set up across a corner of the pen, to allow the birds to be herded into the area, to ensure that every bird went through the boxes to be fed. Any bird that refused to take fish by hand was put back in the area, to be tried again later. At the end of box feeding, we would end up with five or six birds who would not take food, and these had to be sent to the force-feeding pen. It took up to six hours to feed all 6,000 birds, even with 20 people on the team.

▼ *The size of the task is almost overwhelming. Over 19,000 penguins received help.*





▲ A pink tummy means you've passed the grade! Karen makes a final inspection before the birds are released back into their own habitat.

Every third day the birds had vitamin tablets put in the fish. At the Zoo, this work takes 10-15 minutes. In Africa it took me five hours in addition to supervising the feeding. On that first day the temperature was over 25°C and a few days later it reached 30°C.

### Swimming Lessons

Every day we had to swim the birds, to encourage them to preen and put their own waterproof oils on the feathers. This was done by flapping one of the yellow oil skin coats behind a group of penguins to get them to walk into the swimming pool. They had to stay in the pool for five – ten minutes and this was done three times a day in groups of 80 – 100. With 6,000 birds to swim this took a long time.

For the first week most of the days were the same; in the second week we started to grade the birds. After the normal feeding, they would swim for about one hour, allowing them to get completely wet, before the graders arrived. Grading was done by looking at the underlying feathers to make sure

there were no wet spots; this could take up to 15 minutes per bird. If the bird passed this test, it was sprayed with a pink spot and then sent for a blood test. If the blood test was passed, the penguin could be released back into the wild. At first only 40% of birds in each pen were passing the tests

and it was realised that the swimming time needed to be increased. By the end of the week almost 80% of each pen was being released.

### Almost done

By the beginning of the third week, the pace was slowing down. We had released 14,000 birds and there were just 5,000 left on site. The amount of fish eaten each day had gone down from ten tons to four tons. More birds were passing the grading and every day between 500 – 1000 birds were released. On my last day just under 1000 birds were left and it was decided to move these to the other rescue site.

The best possible news came just as I left for the airport. Two pairs of pink spotted birds were seen sitting on eggs. The trip had been very worth while.

I would like to thank Chris, Karen and Mark at the Zoo for their help with the trip. Especially I want to mention just a few people out in Africa. Steve, Pat, Margaret and all the IFAW and SANCOB staff. WE DID IT PEOPLE!

▼ It looked impossible at first – but now the job is almost done.



# Another Reason to Visit the Zoo in the Winter

*Lead presenter Matt Lewis writes about new plans*

If you are visiting the Zoo this winter, be sure to ask about the revised programme of talks by the Presenters. We are launching some new talks in exhibits where we haven't worked before – yet to be confirmed are new talks in Monkey Islands, Islands in Danger and at the Chimpanzee Forest.

The Presenters will be following a set route around the Zoo – so it will be easier to catch up with them, and ask them any questions you have about the animals or developments.

To find out about the new talks, which started on October 29th, look for the leaflets and signs, or ask a Presenter.

## Seeing the Bats in a Different Light

During the quieter periods in the Twilight Zone, the Presenters are now armed with a new weapon – courtesy of Russian military technology! Night vision equipment will allow you to observe the bats without disturbing them, even in the darkest areas of the exhibit.

## The Reptiles Return

Animal Encounter sessions in the Discovery Centre may now include the chance to meet a lizard or snake, plus a few other new animals. The sessions

have been well received – new animals in the centre should allow more variety, especially if you have 'encountered' before.

## Presenters in Therapy...

If you have a phobia of spiders, snakes or 'flappy things' the Presenters may soon be able to help. We are in the early stages of planning sessions to help people overcome their phobias, and are currently consulting a Clinical Psychologist. If you have a phobia, and are interested in taking part in the pilot programme, please write to Matt Lewis, Education Division, Chester Zoo, Upton-by-Chester, Chester, CH2 1LH. The cost and course structure are still to be confirmed.



## MAGNIFICENT MACAW

*This stunning portrait of a blue and yellow macaw was taken in the Zoo by Stuart Hendry of Forever Portraits. These colourful parrots are becoming rare in the wild but ex-situ conservation breeding programmes are very successful.*



# CHENGDU COMES TO CHESTER

IN THE SPRING 2000 ISSUE OF ZOO LIFE, CHIEF CURATOR CHRIS WEST WROTE ABOUT HIS VISIT TO CHENGDU ZOO AND CHENGDU GIANT PANDA BREEDING CENTRE, WITH ZOO VET STEPHANIE SANDERSON AND COUNCIL MEMBER BRIAN LIVINGSTONE. DURING THIS VISIT, A JOINT MEMORANDUM WAS SIGNED, INDICATING INTENT TO COLLABORATE SCIENTIFICALLY AND TO ESTABLISH A 'TWINNING' RELATIONSHIP BETWEEN THE TWO ZOOS.

### CHRIS WEST CONTINUES THE STORY:

IN OCTOBER, a delegation of scientists and senior vets and managers from Chengdu visited Chester Zoo, giving us the opportunity to return the warm hospitality and friendship received when we were in China.

During the visit, the formal agreement for a collaborative relationship between Chengdu Research Base of Giant Panda Breeding, Chengdu Zoo and Chester Zoo was signed. The results of this agreement will be substantial exchange and collaboration in the scientific research areas of conservation, husbandry, reproduction, rearing and disease prevention and treatment of Giant Pandas and other endangered species.

The document also details the mutual agreement of both parties to carry out staff exchange and training, covering scientific, veterinary and technical staff. Both parties expect that as an extension of this collaboration, further development in environmental protection, culture, economy, trade and technology will be promoted by each regional government.

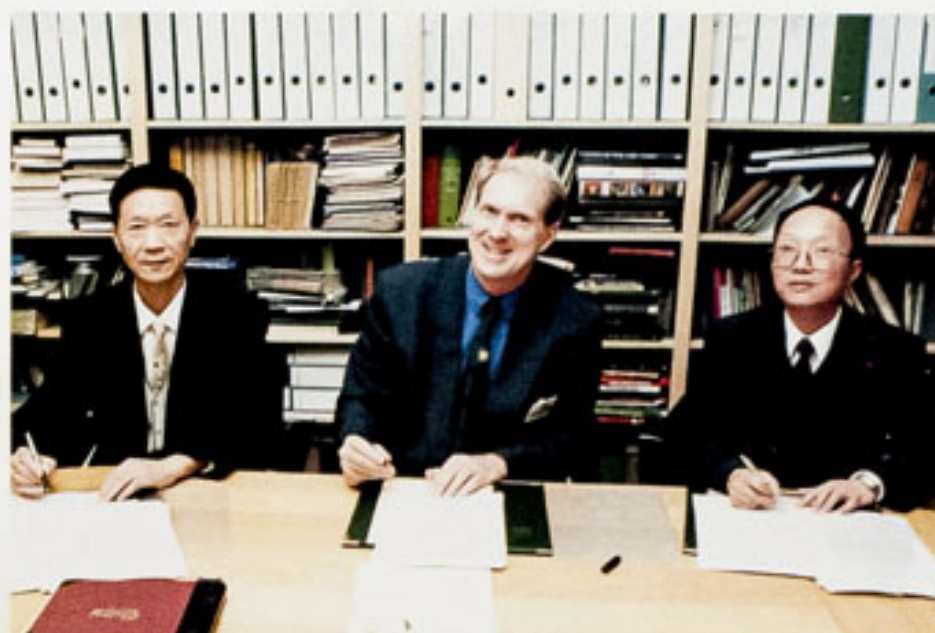
The agreement was signed by Mr Li Guanghan, Director of Chengdu Research Base of Giant Panda Breeding; Mr Tian Yuzhong, Director of Chengdu Zoo and Professor Gordon McGregor Reid, Director of Chester Zoo.

We hope that the scientific collaboration, particularly in the area of assisted reproduction, will help to produce healthy, outbred, well nourished offspring, who will themselves breed in turn, resulting in behaviourally conditioned animals who can be re-introduced into protected and prepared habitats.

We will also be working with the Forestry Bureau in Chengdu on integrated conservation programmes and reforestation, including community relations.

Our visitors from Chengdu were impressed with their tour of Chester Zoo and spoke of their confidence in a long standing and productive relationship. They felt that they could benefit from sharing Chester's experience. In return, our staff will increase their knowledge of focussed, ex-situ breeding of endangered species such as the Golden Monkey, Takin, Crested Ibis and Black-necked Crane.

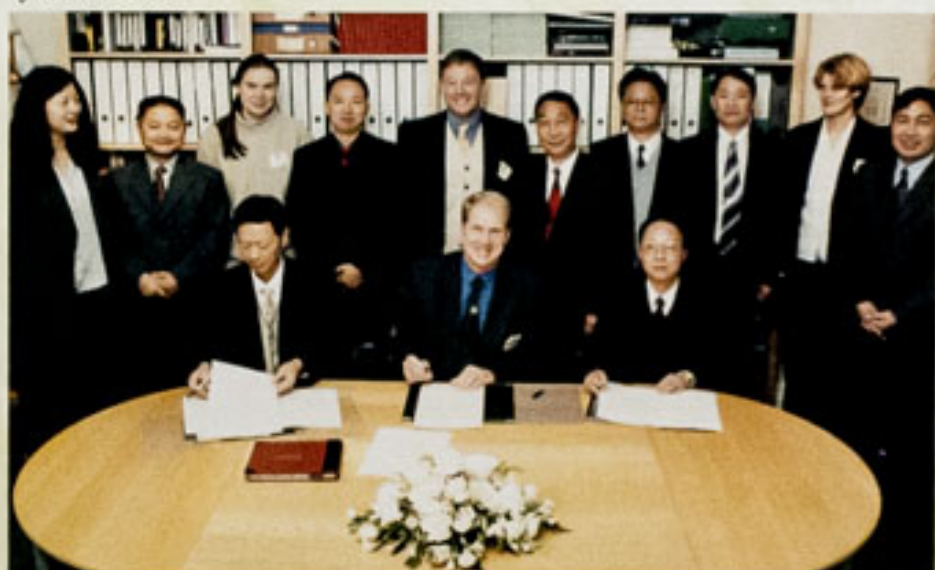
Next year I will return to China with geneticist Dr Steve Kemp of Liverpool University, to develop detailed plans for DNA profiling all the pandas in China, both in zoos and in the wild.



▲ The formal agreement is signed. From left, Mr Li Guanghan, Director of Chengdu Research Base for Giant Panda Breeding; Professor Gordon McGregor Reid, Director, Chester Zoo; Mr Tian Yuzhong, Director of Chengdu Zoo.

▼ Front row (left to right) – Mr. Li Guanghan, Professor Gordon McGregor Reid, Mr. Tian Yuzhong.

Back row (left to right) – Shelley Zhu, Chinese Advisor; Mr. Zhang Zhihe, Deputy Director of CRBGPB; Stephanie Sanderson, Veterinary Resident, Chester Zoo; Mr. Chen Jingjian, Deputy Director of Chengdu Municipal Construction Commission; Mr. Chris West, Chief Curator, Chester Zoo; Mr. Zhang Anju, Senior Consultant of CRBGPB; Mr. Chen Jinyun, Deputy Director of Chengdu Municipal Garden Bureau; Mr. Fei Lisong, Deputy Director of Chengdu Zoo; Alexandra Zimmermann, Conservation Officer of Chester Zoo; Mr. Yu Jianqiu, Deputy Director of CRBGPB.



## Keeper for a Day

The 'Keeper for a Day' scheme is proving very successful and popular – particularly as a unique and memorable gift. Here are the stories of just a few of the people who have achieved life-long ambitions – just for one day!

### A Primate Present

ANIMAL enthusiast, Tulin Keenan, (left) from Ashted chose the primate section for her special day, when she helped look after chimpanzees, orang-utans, monkeys and lemurs. Under the watchful eye of Andrew Lenihan, Team Leader of the primates, Tulin helped prepare food, tidy the paddocks, and assisted with the chimpanzee feeding. The day's highlight was donning waders to cross to Lemur Island to feed the Ring-tailed lemurs.

The day was a combined Christmas/birthday present from husband Tim. Tulin said 'I had no idea how much there was so much work to do! I was thrilled to be able to meet the lemurs and feed the chimps . . . I can thoroughly recommend the scheme'.



## Sealions for a Sixtieth

WYN DAVIES from Hazel Grove (right) had a very special 60th birthday surprise from her 32-year-old twin daughters, Angela and Caroline, and husband Kenneth. They secretly arranged for her to work with the team on the Zoo's Carnivore section – which includes lions, tigers, sealions, cheetahs and bush dogs as well as duties in the Children's Farm. Feeding the sealions was one of the high spots of the afternoon.

Wyn loved it 'It has always been one of my ambitions to go behind the scenes,' she said. 'I have been thrilled with my day – big cats are some of my favourites, and I love all the animals on this section. I had no idea at all what the family had planned'.





SELF-CONFESSED elephant enthusiast, Debbie Duffy, (left) from Rainhill fulfilled a dream when she became a keeper for the day, helping to look after Chester Zoo's Asian Elephants. Under the guidance of team leader, Mick Jones, Debbie helped prepare food, tidy the paddock, clean the house, and assist with washing the elephants.

Debbie has been a long time supporter of our elephants. She made a successful bid in the auction to become a **Keeper for the Day** at the August Elephant Experience Evening. Encouraged by her husband Ray, she made the winning bid of £160.

Debbie works as an occupational therapist, and is based at Whiston Hospital. 'They think that I am elephant mad there!' she told us. But her children, Jemma (9) and Faye (5) admire their mother's way with the elephants. 'I was so thrilled to be able to get close to the elephants,' Debbie said - 'and it was wonderful to be able to help with the washing and to see so much of young Po Chin'.

## Debbie's Dream Day!



## Sally's Surprise

ELEPHANTS were also the choice of Sally Hollyman's family, when they planned her 40th birthday surprise. Sally (left) lives in Sproatley, Hull, and husband Derek and children, Christopher (13) and Emma (9) sent her to the other side of the country to be an elephant keeper at the Zoo!

Sally was overwhelmed 'It has always been one of my ambitions to work with elephants,' she said. 'I had a smashing day and I had no idea my family had planned this'. With nine elephants to care for, Sally had a busy day learning the pitchfork and barrow skills of a true keeper!

## Pam's Pachyderms!



PAM ROE from Croeslon (above) exchanged her normal job as an insolvency practitioner just for a day, to be an elephant keeper! It was a gift from her two sons David and Tim - and a complete surprise to her.

'I have always wanted to work with elephants,' she told us, 'and it was wonderful to be one of the team for the day. The best surprise present ever!'

Chester Zoo is believed to be the only major zoo in the UK to have a **Keeper for the Day** scheme. The amateur keepers are expected to clock on at 8am, and spend the whole day working alongside our professionals. Lunch in the staff canteen is included, and at the end of the day a certificate and specially printed T-shirt is presented. Cost is £150. Full details are available for an SAE, addressed to Keeper for the Day, Chester Zoo, Chester CH2 1LH.

'Meet my baby brother!' Flanked by Mum, *Thi-hi-Way* and 'Auntie' *Sheba*, almost-three-year old *Sithami* gives a cuddle to her new baby brother *Assam*, born on 7th October 2000. Photograph by Andrew Price of Viewfinder Pictures, Chester.





## A Bronze Elephant

Having seen the popularity of the life-size bronze Komodo Dragon statue outside *Islands in Danger*, the Education Division decided to commission a similar sculpture as part of the elephant interpretation. Sara Ruks explains the process!

After a couple of weeks of detective work, we discovered a foundry in Hampshire that had cast bronze elephants in the past. David Vallance, the Managing Director, proved very helpful and put us in touch with Annette Yarrow, one of the artists he works with.

Annette grew up on a tea plantation in India, where she developed an interest in, and a love for, elephants. Trained as a nurse, she now makes her living as an artist, specialising in animal sculptures. Some of her previous life-size works in bronze include a golden eagle for the Army Air Corps and a Bedouin Warrior mounted on an Arab mare for His Late Majesty King Hussein of Jordan. Many of Annette's animal sculptures have been commissioned by Asprey's, the royal jewellers.

From the moment we first approached her, Annette has shown tremendous enthusiasm for the project. She visited the Zoo and spent the morning watching the elephants at close quarters while her husband, John, took numerous photographs. Using these, video footage and her memories, she produced a third-sized plasticine maquette of a young female elephant. Knowing that the finished bronze would be climbed on, she created a pose that was not only realistic, showed movement and would appeal to all age groups, but was also safe. The foundry used the maquette to produce a life-sized plaster model, to which Annette added fine detail and texture.

In early September, Neil Spooner and I travelled to her studio in Hampshire to look at the model. Following minor modifications suggested by Neil, the plaster model was returned to the foundry and used to produce the mould from which the bronze is cast. However, the head was first produced in wax, so that Annette could sculpt the fine detail.

Hopefully, by the time you read this, Annette will be putting the final touches to the bronze for delivery and installation by the end of 2000.

## Great Ape Event

Niall Ormerod, Specialist Primate Keeper, writes about a London seminar he attended, together with other members of staff, entitled *The Great Ape Event*.

OVER 2000 people attended this important, thought provoking meeting, which was hosted by Sir David Attenborough. The purpose was to launch an international campaign called 2001 – *An Ape Odyssey*. The campaign aims to highlight the critical status of great apes.

The speakers were Ian Redmond, Dr Jo Thompson, Professor Birute Galdikas and Dr Jane Goodall, ably supported by Dr Charlotte Uhlenbroek. They each spoke about their individual ape expertise – gorillas, bonobos, orang utans and chimpanzees respectively. Sadly, the message from each of these highly regarded specialists was very similar. *These great apes could all become extinct within the next ten years.*

The two main reasons for this terrible prediction are uncontrolled – often illegal – logging and the bushmeat trade. Though very different, these acts are usually linked.

### What can we do?

If nothing else – please sign the petitions at the orangutan and chimpanzee centres at Chester Zoo. Nearly 50,000 people have already signed. Ensure that any furniture you buy is made from wood from a Forest Stewardship Council (FSC) source, guaranteeing that it comes from a sustainable managed forest. Lobby your MP and MEP to ensure that no timber that has been illegally logged is allowed into this country or into Europe. But what is most needed, of course, is money. This will help in education; funding projects to ensure the survival of forest species and the indigenous forest dwellers and help to fund the effective running of reserves.

Cheques, payable to 'Ape Alliance' may be sent to: The Ape Alliance, 7 Kent Terrace, London NW1 4RP.

**M**Y grandfather worked on the oil fields in Ecuador in the 1930's and I had always known I would visit one day. It felt like destiny when my sister and I left Manchester bound for Quito. Budget permitting, we wanted to explore Quito, experience rainforest and visit the Galapagos.

We soon realised that there is far more to Ecuador than this and a fellow traveller told us 3 weeks was about long enough to plan our next trip! . . . we have. Ecotourism is big in Ecuador – with volcanoes, the mysterious Amazon rainforest, the Galapagos, the 'Darwin factor' and probably more biodiversity than anywhere else on earth, it is not hard to see why.

Our first excursion from Quito was into cloud forest, two hours drive to the north-west, where we spent three days at Bellavista Lodge . . . what an incredible place. The lodge is situated in a 700 hectare reserve linked to *Fundacion Siempre Bosque*, a conservation organisation helping to preserve cloud forests for educational, scientific and recreational purposes. The birds and plants were stunning. Watching Plate Billed Mountain Toucans as the sun rose over a jagged volcano at 5.30am, was an experience I will never forget.

### Amazon

Next the Amazon - six hours by bus, two hours by canoe. We stayed at Yachana Lodge on the Rio Napo. Yachana means 'place of learning' and the lodge uses ecotourism to better the lives of local

## Ecotourism in Ecuador

**Sarah Bird, Assistant Curator of Botany and Horticulture, joined the Zoo in July this year. Shortly after her appointment, she took off on a long awaited holiday to Ecuador.**

people. It is run by an organisation called *Funedesin* (Foundation for Integrated Education and Development) which attempts to provide local people with solutions that balance the ideals of preservation with the realities of regional life. In particular *Funedesin* encourages micro-enterprise development, based on sustainable use of forest resources. We visited a processing plant (big hut!) producing exotic fruit jam and a delicious unrefined chocolate. I am looking at the possibilities for using or selling their products in the Zoo.

Vivid memories of the jungle include the constant noise (insects, frogs, and birds) – it is quite deafening especially at dusk, - and the density of the vegetation. Plants don't just grow in the ground; they grow all over each other too. It was useful for me to see Jaguar habitat at first hand, though how we will replicate the huge numbers of epiphytic plants growing on trees I have not yet figured.

### Galapagos

Galapagos – surely the ultimate holiday

destination for a biologist! These islands are reaching saturation tourism levels and I felt a bit uncomfortable about being part of the exploitation of this unique and fragile place. There are very strict regulations to protect the region. You can visit the National Park only with a trained guide. Many islands require a landing permit and tourism is restricted to a very small part of many islands. The fact that a lot of tourist money goes into funding research and protection of the reserve makes me feel a little better.

It is amazing to be able to watch animals such as sealions, iguanas and penguins at very close quarters. But isn't this awe and wonder just the experience we strive to provide in a zoo? And in a zoo the presence of the visitor does not directly threaten the fragile ecosystem into which the animal fits.

My Galapagos visit strengthened my feeling that we have an enormous responsibility for the planet. I saw the devastating impact that introduced goats and pigs have had on some islands. A century ago, ships filled their stores with live tortoises for fresh meat (by stacking them upside down they would live, without food or water, for about a year). I met 'Old George', a tortoise the size of an upturned wheel barrow, who is the only surviving member of his race. The Galapagos Islands are amazing, but I hope that visitors leave with a slight tinge of guilt, and that their lives are affected by the experience, as mine has been.

▼ *Seeing large animals or birds in rain forest is difficult but for me the plants and butterflies were equally thrilling.*





# PO CHIN – Son of Chang

**Dr Paul Rees of the School of Environment & Life Sciences at the University of Salford reports on the time he spent observing the elephants in the weeks after the birth of *Po Chin*. His article was written before the birth of the new elephant calf on 7th October.**

**P**O-CHIN, was introduced to his father, *Chang*, on 2nd August. An hour and a half later he was desperately trying to find his mother, *Jangoli*, amongst a forest of elephant legs, as *Chang* was chasing him away. The two-week old calf had made the mistake of getting in his father's way while he was courting *Sheba*. *Chang* had not taken kindly to the intrusion.

During the construction of the new enclosure, *Chang* had not often been able to mix with the rest of the herd. This was his first day as part of the herd for many months. Within five minutes *Chang* joined *Upali* and *Sithami* for a bath in the new pool. Soon, however, his attention turned to the adult cows. Water dripping from his back, he

walked briskly up to *Jangoli* and gently pushed *Po Chin* away with his trunk. After losing interest in *Jangoli*, *Chang* then began courting *Sheba*, following close behind her and pushing her gently into position with his head.

All of the elephants show great interest in sexual behaviour, including *Upali* and *Sithami*, and *Po Chin* was not going to be left out. Suddenly *Chang* became aware of a tiny elephant scurrying around his feet. He stopped in his tracks, raised his huge right forefoot and swung it backwards. *Po Chin* was sent flying across the ground. He screamed and the rest of the herd spun around to reassure him. In the middle of this commotion *Chang* continued to pursue *Sheba* but by this time *Po Chin* had recovered and was running around

in front them. The young bull could not have had a more dramatic introduction to life within the elephant herd.

## The Birth

*Po Chin* was born on Tuesday 18th July at 1.28 am, increasing the herd from eight elephants to nine. This wonderful moment, however, was a long time coming since gestation in elephants lasts 22 months. For almost a month before the birth, keepers had been monitoring *Jangoli*'s behaviour at night on a closed circuit TV system from a temporary building behind the Elephant Quarters. Then on Monday 17th July *Jangoli*'s daytime behaviour altered significantly. She was exhibiting all of the telltale signs of an elephant who was about to give birth. *Jangoli* spent

much of the day eating alone but other members of the herd came to see her many times and showed more than the usual interest in her urine and dung. Throughout the day the pregnant cow repeatedly lifted her tail high in the air, stretched, lifted and crossed her back legs and dribbled small quantities of urine; all sure signs of an impending birth.

At 9.20 pm on Monday night keepers watching the CCTV monitors saw a bulge appeared underneath *Jangoli's* tail and she went into labour. Just over four hours later *Po Chin* was unceremoniously dropped into the world. Within minutes he was on his feet and *Jangoli* and *Sheba* were guarding him against the back wall of the Elephant House. *Sheba* assumed the role of 'aunt' to *Po Chin* from the moment he was born, as she had with *Sithami* and *Karha*.

At first it seemed *Po Chin* might not be able to reach his mother's breasts. He tried leaning forward with one forefoot held in the air but this did not help because he could not balance for long enough. By the next day *Po Chin* had found a solution. By kneeling down on his back legs he discovered that his head pointed upwards and at last he could reach his mother's milk.

## Introduction

Over the next few days *Po Chin* was gradually introduced to the other herd members, the public and the media. Now he is an integral part of the herd. At a little over two weeks old, he had already taken part in the noisy mating pandemonium that accompany adult sexual behaviour and the equally raucous greeting ceremonies exhibit by *Jangoli* and *Kumara*, her closest companion. He can run fast enough to keep up with herd when it is on the move, and when resting he is equally happy to be tended by *Jangoli* or *Sheba*. Although *Jangoli* responds quickly to the slightest threat to her calf she will happily leave *Sheba* to guard him and may occasionally be seen over

50 metres away. In the wild, this behaviour allows mothers to forage over larger areas than would be possible if they were compelled to stay near their calves.

## Sheba's Role

Since he was just a few hours old *Po Chin* has been turning to *Sheba* for comfort and reassurance. He can often be seen suckling from his mother and then from *Sheba*, just as *Sithami* did when she was younger. On average he suckles from *Jangoli* every twenty to

intruder. *Sithami* looked positively frightened when she first saw him: she had never seen an elephant smaller than herself! But after just a few days the two young elephants were clearly eager for *Po Chin* to join in their games of chase. Unfortunately, *Jangoli* is rather less eager, and when they lead him away from the rest of the herd she quickly runs to his side.

The next time you visit the zoo, spend a little time watching the elephants. If they sense danger (perhaps an unusual sound or the scent of tigers in the air)



## DIARY OF PO CHIN'S FIRST TWO WEEKS OF LIFE

Date	Age (days)	Event
Tues 18th July	0	Born at 1:28 am. Kept inside with <i>Jangoli</i> & <i>Sheba</i>
Weds 19th	1	Introduced to <i>Maya</i> inside.
Thurs 20th	2	Introduced to <i>Kumara</i> . First time outside in coral.
Fri 21st	3	Introduced to <i>Thi-Hi-Way</i> & <i>Sithami</i> . Introduced to the Press.
Sat 22nd	4	First introduction to the public in the Elephant House.
Weds 26th	8	First day out in the main enclosure with keepers. Introduced to <i>Upali</i> . Visit from Granada TV.
Sat 29th	11	First day in main enclosure without keepers.
Weds 2nd Aug	15	Introduced to <i>Chang</i> in the main enclosure.

thirty minutes, sometimes for just a few seconds, but at other times for several minutes. When he was just two days old *Po Chin* began putting water and grass in his mouth and when he reached five days old he began chewing on leaves and small branches put out for the older members of the herd. Now he spends his day running with the herd, climbing logs, digging in the sand and dozing by his mother's side.

When *Po Chin* was first introduced to *Upali* and *Sithami* (his half-sister) they were both a little wary of the new

you may be treated to the breath-taking spectacle of a herd of Asian elephants forming a protective circle around their young, spinning around and trumpeting as they form a closed group with the youngsters lost between the enormous legs of the adults – just as they do in the wild. And if you look carefully you will see an extra set of tiny elephant legs somewhere in the middle!

Photographs courtesy  
Mike Maloney,  
Mirror Group Newspapers.

# SAVING THE FERRERET – MALLORCA'S LIVING FOSSIL



Sierra de Tramuntana Mountains.

**A**s the largest of the Balearic Islands, Mallorca is a popular destination for holiday makers. Most tourists, however, are not aware of the remote mountain gorges in the north of the island that provide a refuge for Europe's most endangered amphibian – the Ferreret, or Mallorcan Midwife Toad.

As with similar species on mainland Europe, the Mallorcan Midwife Toad gets its common name from the male toad's habit of looking after the developing eggs. After spawning, the male wraps the string of eggs around his hind legs and carries them around until they are ready to hatch. He then takes them to water where the eggs are dropped, allowing the tadpoles to break free and swim away. The size of the clutch varies from about 9 – 15 eggs. This is considerably less than in other Midwife Toad species, but is a feature often seen in island species, when, in the absence of predators or competitors, the reproductive output decreases.

At first glance, this toad does not appear particularly striking, coloured as it is in a sombre mix of cream and olive. This inconspicuous appearance, coupled with a small adult size (just under 4cm) and secretive lifestyle, allowed it to escape scientific discovery until 1980.

**ZOO BREEDING PROGRAMMES FOR RE-INTRODUCTION INTO THE WILD ARE NOT JUST ABOUT THE LARGE EXOTIC CREATURES! IN SEPTEMBER, STEVE NASH OF OUR HERPETOLOGICAL SECTION, TOOK PART IN A VERY SUCCESSFUL CONSERVATION EXERCISE FOR THE CRITICALLY ENDANGERED MALLORCAN MIDWIFE TOAD.**

Prior to this, the species was known only from sub-fossil remains found in 1977 and was presumed extinct. The discovery of a live toad in 1980 was therefore something of a surprise!

## Declining Populations

The toad is thought to have once been widespread over the island. Extensive survey work carried out after its discovery, however, revealed the range to be perilously small. Only a few breeding populations were discovered, each of them isolated in remote gorges in the Sierra de Tramuntana mountain range. At that time, it was estimated that only 1000 – 1500 adult toads survived. To make matters worse, each population was completely cut off from the others, as the toads were unable to cross the inhospitable mountain terrain between the gorges. Because each group was reproductively isolated, they

had each become genetically different over the years, making each population unique.

The major reason for the toad's extreme rarity was the Viperine snake. This semi-aquatic, frog-eating snake was introduced to Mallorca, probably by the Romans, about 1800 years ago. Having evolved on an island with no predators, the toad did not stand much of a chance against this voracious newcomer. In a short time, the toad had been eaten almost to the point of extinction, surviving only in the steep sided gorges that were inaccessible to the snake. Another introduced species, the Marsh Frog, also contributed to this decline by out-competing the much smaller toads in otherwise suitable habitat. This type of scenario is, unfortunately, all too common on islands all over the world.

## Conservation breeding programme

In 1985, the Mallorcan government asked the Jersey Wildlife Preservation Trust (now the Durrell Wildlife Conservation Trust) to initiate a conservation breeding programme for the toad. The aim was to produce captive bred toads and tadpoles that could be re-introduced into suitable wild sites. In 1984 the first of these re-introductions

took place and they have occurred almost every year since.

In September I was extremely fortunate to be asked to accompany staff from Jersey on a trip to Mallorca. In addition to re-introducing Jersey bred toads to the wild, I also had the opportunity to visit a number of sites and gain a better understanding of the toad in its natural habitat.

Leaving the petrol shortage behind me, I met up with Jersey Keeper Donna Preece, who had been to Mallorca before and was able to answer my many questions. Senor Alvaro Roman, the field biologist responsible for surveying and monitoring the re-introduced toads, met us at Palma Airport. Jersey had sent two groups of toads and tadpoles. One of these groups was to be kept at Marineland in Palma for breeding purposes, and the other was to be re-introduced at a pre-selected site.

### Choosing sites

All the sites had to fulfil a number of criteria. These included such things as the presence of a permanent water body; provision of adequate rocky refuges and absence of any predators or competition. Before they left Jersey, all the animals were given a complete health check to ensure that they carried no parasites or diseases that could affect wild toads.

All of the sites we visited were man-made, having been adapted from water tanks and troughs originally used for goats. The sites were also located on private land and it was very encouraging to see the support and enthusiasm shown by the land-owners for the project. It soon became clear how the Mallorcan Midwife Toad had eluded discovery for so long. The mountainous terrain was incredibly hot and dry and extremely remote. It certainly made me appreciate how difficult it can be for field workers such as Alvaro to carry out their vital work. It also made the discovery of a pool full of tadpoles, or an adult male toad living up to its name and carrying eggs, that bit more special.

Alvaro's research shows that at some of the sites, the toads are not only establishing themselves, but are also showing signs of dispersal. Hopefully this will lead to the toad's gradual re-colonisation of its historic range.

### Success Story

The recovery programme has been very successful and is widely regarded as a model for amphibian conservation. Since re-introductions began in 1985, the toad's range has increased by 100%, with animals now occupying an area of approximately 200km<sup>2</sup>. It is also thought that 25% of the wild population originates from zoo-bred stock. The future of the toad in the wild is looking bright and I feel very privileged to have played a small part in its recovery. Seeing captive bred toads swim from their box into their new home is a sight I'll always remember and it really brought home the importance of the work that conservation organisations like Jersey and Chester Zoo are doing.

Chester Zoo's herpetology department has now become directly involved in the Mallorcan Midwife Toad recovery programme. We are the proud guardians of a group of these wonderful amphibians, currently residing in an off-show facility in the *Tropical Realm*. In the near future, they will be introduced into a large naturalistic vivarium, providing a unique opportunity to see and learn about this critically endangered living fossil.

#### MY THANKS TO :

Chester Zoo colleagues Isolde McGeorge and Sarah Cocks for their support and assistance.

The Durrell Wildlife Conservation Trust for their help in establishing the pilot breeding project here.

Alvaro Roman, without whom the field trip would not have been possible.

P.S. Since this article was written, six tadpoles have successfully hatched at Chester Zoo.



▲ Male Mallorcan Midwife Toad with eggs.



▲ Field Biologist Alvaro Roman reintroduces captive bred animals.

▼ Tadpoles.



Photographs by Steve Nash

# Children's Activity Days 2001

These events are open to all children – not just Junior Members

## MEXICO

FRIDAY 23rd FEBRUARY 2001

Mexico is the meeting point between animals and cultures of Central, South and North America. We'll meet some strange inhabitants, such as the Axolotl and find out about the people of Mexico.



## EASTER EGGSTRAVAGANZA

THURSDAY 12th APRIL 2001



Repeated by popular demand. Big eggs, small eggs, hatching eggs, birds' eggs, reptiles' eggs, fossil eggs. Find out what happens inside an egg and why eggs are different shapes and sizes. Visit the Zoo's incubation and rearing room during a trip around the Zoo looking at nests and young birds. Make a 'Fabergé egg' to take home.

## BATS

THURSDAY 25th OCTOBER 2001



As we approach Halloween, explore the fascinating world of bats. Discover the truth about Vampire Bats! Take a close look at bat skeletons, learn how they navigate, visit the Twilight Zone to study those at Chester Zoo. A special bat craft activity rounds the day off.

- Each day will be from 10.00 am to 4.00 pm.
- Cost per day will be £20 (including a morning drink and snack).
- Children are asked to bring a packed lunch.
- Children will be supervised throughout the day.
- By the end of the day each child will have something special to take home.
- These activities are open to children aged 8 – 11 years. (ie in years 3, 4, 5 or 6 of Primary School on the date of the activity).

**ARE YOU INTERESTED?**  
 Contact the Education Division at Chester Zoo on **01244 650205** for a booking form.  
 \*\*\*  
**DATE FOR YOUR DIARY**  
 – SOUTH AMERICAN WEEK –  
 Week beginning 13th August 2001

## BUGS

TUESDAY 29th MAY 2001

If you missed out on our exciting 'Bugs' day last year, here's another chance to investigate the strange world of mini-beasts. Help carry out a survey of the invertebrates in the Zoo's grounds. Get close to some of the larger 'bugs' in the Education Centre.



## MONKEYS, APES & MAN

SATURDAY 29th SEPTEMBER 2001

Come along as we explore the wonderful world of some of our closest relatives. Join us as we visit the Zoo's primates and take a close look at real skulls, teeth and bones.



## DINOSAUR EXPERIENCE

SATURDAY 8th DECEMBER 2001

Another opportunity to join us in a journey to the Jurassic as we explore the fascinating world of the biggest animals ever to roam the Earth. Examine real dinosaur eggs, take part in a dinosaur dig, hear about the latest dinosaur research, make your own plaster cast fossil and meet some of the dinosaurs' living relatives.





## Spirit of the Jaguar

**A**FTER approval and provision of funds for the new exciting Jaguar exhibit, work began on site in Spring 2000. It was decided to locate the new development on the site of the old car park, which allows the construction to progress without causing too much disruption to the running of the Zoo. This is a great benefit for any development and hopefully should ensure that the works can be finished within the agreed timescale.

The schedule of works underway at present is as follows:

The completion of all foundations for the main building which include reinforced concrete strip footings and groundbeams which will support the massive new steel superstructure.

Steelwork is 90% complete and this has been a demanding challenge for the design and fabrication team in forming the innovative curved roof line comprising of two segmental wings joined by a central circular dome area. After several attempts to line and level, this has now been successfully completed and work is progressing on the secondary steel work and timber work for the roof covering.

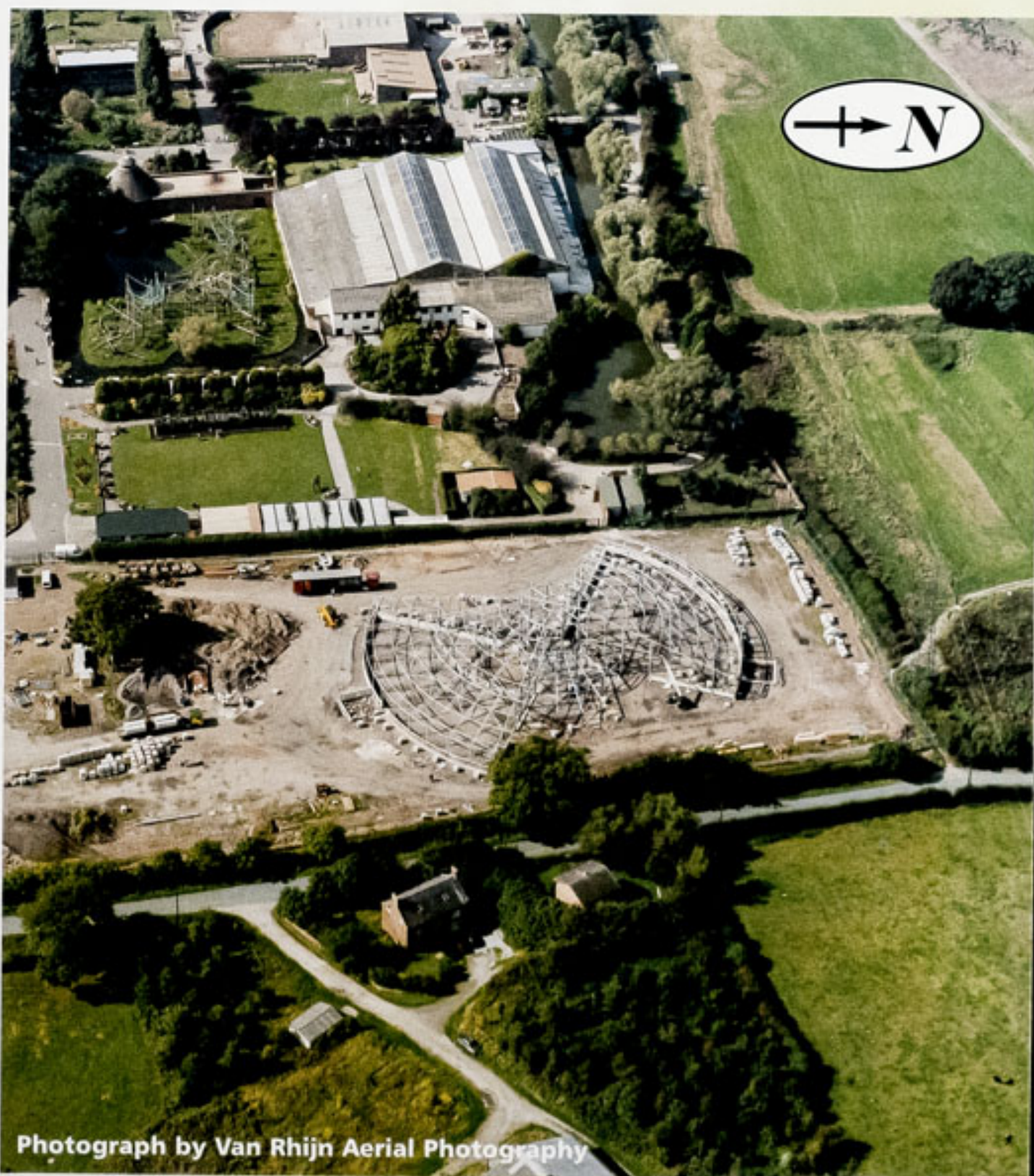
The curved masonry walls, which include both rendered and split faced blockwork, are progressing well despite the recent wet weather.

With the overall footprint established, the size of the development is now appreciated by all those involved. The completed design should be a tremendous achievement, offering both a substantial area and natural facilities for the jaguars, together with excellent keeper facilities and public viewing.

Building should be finished in January 2001.

*This aerial photograph, taken in August, shows the skeleton of this major new feature funded with generous sponsorship by Jaguar Motors.*

*Estates Engineer Steve O'Brien reports on the progress:*



Photograph by Van Rhijn Aerial Photography

## Islands Week

Chester Zoo

Following the Education Division's successful 'Africa Week' last summer, we decided to hold an 'Islands Week' this year. Armed with their special passports and lots of enthusiasm our curious travellers learned about island wildlife, culture and conservation. Gill Wells reports



Monday  
Oceania was our starting point. The week began explosively as we looked at how islands are formed (above) and how plants and animals reach them. Easter Island was the inspiration for carving our own statues.



Tuesday  
Tuesday saw us in Madagascar. Great fun was had paper making, identifying mystery objects (above), following spice trails and handling Giant Hissing Cockroaches. Not even the downpour during our waterbus trip could dampen our spirits! However, the highlight of a very exciting day was meeting Leroy, the Red-ruffed Lemur.



Wednesday  
Winston Nzinga's performance workshop in music and story-telling was a wonderful introduction to the colourful Caribbean on Wednesday. We visited a variety of animals and worked up an appetite whilst island hopping in the afternoon. Plantain Crisps (above) and Rum Truffles were cooked up by our budding chefs!



Thursday  
On Thursday our intrepid explorers arrived in Indonesia. A whole morning was spent on safari, visiting many of our favourite animals (above). A messy afternoon of mask painting, stone decoration and jewellery making reflected the cultures we had investigated.



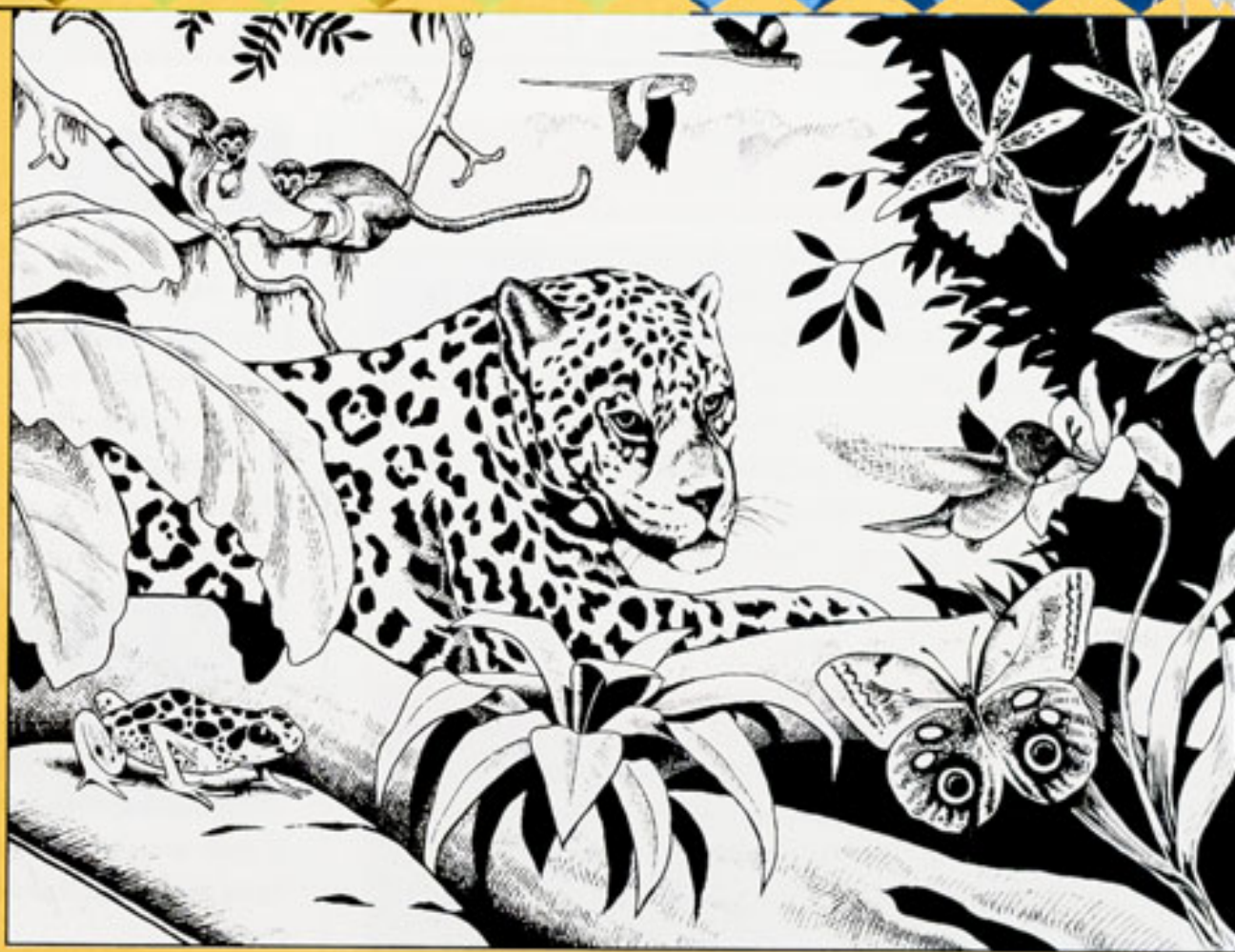
Friday  
On the final day of our voyage we returned to Britain to look at some of our endangered animals. There was close observation of Harvest Mice, Tadpole Shrimps and Sand Lizards amongst others. Mike enthralled us with his Peregrine Falcon and Fiona's workshop on predator/prey relationships (above) had us totally involved in role playing!

**Many thanks to everyone who helped make 'Islands Week' such a success. We are looking forward to seeing all our adventurers on our 'trip' to South America next summer.**

# Junior Members' COMPETITION TIME

## SPOT THE DIFFERENCE!

These two pictures may look identical – but if you look very closely there are 14 differences. Mark each of them with a very clear cross and when you have found all 14, send your entry to Junior Competition, Chester Zoo, CH2 1LH. If you don't want to tear this page from your magazine, we will accept photocopies. The prize is £10 gift voucher for the zoo shops. Closing date is 15 January 2001.



### AUTUMN ISSUE WINNER

OUR strange animal in the last issue was a mixture of ten animals. There were lots of entries, but most of them had only 9 out of 10 correct answers. Many of you had put 'antelope' instead of 'Scimitar-horned oryx'.

The correct list is: ring-tailed lemur, zebra, camel, ostrich, giraffe, elephant, rhinoceros, Scimitar-horned oryx, lion and tiger. One all-correct entry could not be included in the judging because the sender had forgotten to include his/her name and address! It was sent on a bright Welsh dragon postcard, and the chosen animal name was Scrotglerz!! (You should recognise yourself from this – make sure you don't make the same mistake this time!)

The winner is Rebecca Williams from Bromborough. Her wonderful name for our exotic creature is DECAPOLYZOOP! Rebecca receives a £10 voucher for the zoo gift shops.





Zoo Life

# JUNIOR MEMBERS



Meetings and Field Trips

### Saturday 27 January 2001 - The Contact Session

One of our most popular events of the year, the Contact Session is your chance to meet, handle and talk to some of the Zoo's friendlier residents. These are likely to include snakes, spiders, tortoises, lizards, rabbits, guinea pigs, ducks and a few more.

Over eights should meet outside the Oakfield for 2.15 pm and we will walk through the Zoo to the Wildlife Discovery Centre to meet the animals. Juniors will be taken back to the Oakfield for 4.00 pm for collection by parents.

### Saturday 24 February 2001 - The Sea Life Centre and Blackpool Zoo

An action-packed day is on offer when we travel to Blackpool to visit the well known Sea Life Centre there in the morning and then move on to Blackpool Zoo in the afternoon.

Juniors over the age of eight should be appropriately dressed for indoors and outdoors, and we will leave the staff car park at 9.00 am, returning at 5.30 pm. Bring lots to eat on this long day out.

### Saturday 24 March 2001 - Tracks and Signs

Juniors love the opportunity to be on the 'other side of the fence' looking around inside the animal enclosures to find footprints from which to make your own plaster casts. March usually proves to be a muddy-enough month to make this a successful but messy event so make sure you wear really old clothes and wellies.

Over eights are invited to join us, starting at 11.00 am when we will meet outside the Oakfield.



### Saturday 21 April 2001 - Knowsley Safari Park

It has been a few years since we last visited Knowsley Safari Park and things have changed a lot since then. We hope to have a guided tour around the park which will make this a special event.

Over eights are invited to join us and we will leave the staff entrance at 10.30 am, returning to the Zoo at 4.30 pm. You will need a picnic.

### Saturday 19 May 2001 - The Middlewood Way

This is a new event for Juniors, when we will be travelling to Macclesfield and walking a few miles of the well known *Middlewood Way* which was once a railway line and which is now a nature reserve. We will be accompanied by a Ranger who will point out some of the special sights along the way.

Over eights are welcome to join us, bringing a picnic, when we leave the staff car park at 9.30 am. We should be back at the Zoo around 5.30 pm.

### Saturday 23 June 2001 - The Chestnut Centre

Always one of our most enjoyable events, we look forward to visiting the lovely *Chestnut Centre*, which is an Otter and Owl Conservation park in Derbyshire. We will have a tour around this beautiful location and admire the work being done there for Otters and Birds of Prey.

The bus will leave the staff car park at 9.30 am, returning at 5.00 pm. Over eights are invited to come along. Remember to bring a picnic.





## Wednesday 25 July 2001 – Day With a Keeper

Undoubtedly the most popular day in the Juniors' calendar, when you are given the opportunity to spend a day working alongside



a Zoo Keeper. The work can be strenuous and we have to strictly limit this event to Juniors of twelve or over. We do try to accommodate Juniors' areas of special interest but obviously places are very limited so this cannot be guaranteed. Please come prepared to work hard, wearing wellies and with a good picnic.

We will meet outside the Oakfield at 10.30 am and the day will finish for Juniors at 4.00 pm. Please note that bookings will not be taken before Wednesday 11th July 2001 from 8.30 am.

## Friday 17 August 2001 – Summer Barbeque

A regular meeting point during the summer holidays when Juniors can get together for an evening in the Zoo after all the visitors have left. Apart from your barbequed supper, there will be a 'surprise' speaker to entertain Juniors.



Over eights are invited to come along for this relaxing evening which starts at 7.00 pm when you should arrive at the Staff Entrance and walk over to the Ark Restaurant. Parents are requested to collect Juniors from there at 9.45 pm.

## Saturday 22 September 2001 – The Green Wood Centre

Another new event for this year will be our trip to the Green Wood Centre in Snowdonia. This Forest Heritage and Adventure Park offers the chance to learn about ancient and modern forests and how conservation and production can go hand in hand.

Lots of interactive exhibits, and involvement in traditional forest crafts and walking the woodland trails will ensure that this will be a great day out.

## Saturday 20 October 2001 – Lower Moss Wood Reserve and Wildlife Hospital

We will spend the day being guided around this small but very interesting reserve near Knutsford in Cheshire, which also serves as a rescue centre for injured British wildlife. This will be a chance to see hedgehogs, foxes, lots of birds and probably some surprises too.

The bus will leave the staff car park at 10.30 am and return at 4.00 pm. Over eights are invited along with a picnic.

## Saturday 17 November 2001 – Electric Mountain and the Welsh Slate Museum

Our third new venue this year will be a visit to the *Electric Mountain* and *Welsh Slate Museum* in Llanberis, Snowdonia. This will be a chance to find out more about how electricity is generated and about geology and should be a good day out.

The bus will leave the staff car park at 9.30 am and will return at 5.00 pm. Suitable for over eights. Remember to bring a picnic with you.

*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. 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 Zoo Life – not by individual letter – so please keep up-to-date by reading the Junior Page in each issue.*

*A small charge will be made to cover the cost of those events which involve transport, materials or the provision of food and you will be informed of this at the time of booking.*

## MERRY CHRISTMAS



Penny and all the Zoo Staff wish our Junior Members a very happy Christmas and a great New Year

# Arrivals, Births and Hatchings

August, September and October 2000

## MAMMALS

Red-necked Wallaby	<i>Macropus rufogriseus</i>	0.1.0	Birth
*Rodrigues Fruit Bat	<i>Pteropus rodricensis</i>	0.0.1	Birth
Seba's Short-tailed Bat	<i>Carollia perspicillata</i>	0.0.16	Birth
Mara	<i>Dolichotis patagonum</i>	0.0.2	Birth
Black-tailed Prairie Dog	<i>Cynomys ludovicianus</i>	0.0.9	Birth
*Asiatic Elephant	<i>Elephas maximus</i>	1.0.0	Birth
*Guanaco	<i>Lama glama guanicoe</i>	1.0.0	Birth
*Burmese Brow-Antlered Deer	<i>Cervus eldi thamin</i>	0.1.2	Birth
*American Bison	<i>Bison bison</i>	0.0.1	Birth
*Black Rhinoceros	<i>Diceros bicornis michaeli</i>	0.1.0	Arrival

## BIRDS

White Stork	<i>Ciconia ciconia</i>	0.1.0	Arrival
Chilean Flamingo	<i>Phoenicopterus chilensis</i>	0.0.7	Hatched
Caribbean Flamingo	<i>Phoenicopterus ruber ruber</i>	0.0.1	Hatched
Garganey	<i>Anas querquedula</i>	1.2.0	Arrival
*White-headed Duck	<i>Oxyura leucocephala</i>	0.2.0	Arrival
*Mountain Peacock Pheasant	<i>Polyplectron inopinatum</i>	0.0.1	Hatched
*Congo Peafowl	<i>Afropavo congensis</i>	0.0.1	Hatched
*West African Crowned Crane	<i>Balearica pavonina pavonina</i>	0.0.30	Hatched Arrival
*Mountain Witch Dove	<i>Geotrygon versicolor</i>	0.0.1	Hatched
*Yellow-backed Chattering Lory	<i>Lorius garrulus flavopalliatus</i>	0.0.1	Arrival
Speckled Pigeon	<i>Columba guinea</i>	0.0.1	Hatched
Rock Dove	<i>Columba livea</i>	0.0.1	Hatched
*Nicobar Pigeon	<i>Caloenas nicobarica</i>	0.0.1	Hatched
*Golden-capped Conure	<i>Aratinga auricapilla</i>	0.0.2	Hatched
Schalow's Turaco	<i>Tauraco schalowi</i>	0.0.1	Hatched
*Tarctic Hornbill	<i>Penelopides panini</i>	0.1.0	Arrival
Hooded Pitta	<i>Pitta sordida</i>	1.2.0	Arrival
Red-eared Bulbul	<i>Pycnonotus jocosus</i>	0.0.1	Hatched
White-rumped Shama	<i>Copsychus malabaricus</i>	0.0.1	Hatched
*Red-winged Laughing Thrush	<i>Garrulax formosus</i>	0.0.3	Arrival
*Omei Shan Liocichla	<i>Liocichla omeiensis</i>	0.0.2	Hatched
Asian Glossy Starling	<i>Aplonis panayensis</i>	0.0.2	Hatched

## REPTILES

Malayan Box Turtle	<i>Cuora amboinensis</i>	0.0.1	Bred
*Sand Lizard	<i>Lacerta agilis</i>	0.0.33	Bred
*Rhinoceros Iguana	<i>Cyclura cornuta</i>	0.0.5	Arrival

## AMPHIBIANS

Costa Rican Tree Frog	<i>Phrynohyas resinfectrix</i>	0.0.10	Arrival
*Mallorcan Midwife Toad	<i>Alytes nuletensis</i>	0.0.21	Arrival

## FISH

*Pin-striped Damba	<i>Paretroplus menasambo</i>	0.0.12	Arrival
*Spotted Damba	<i>Paretroplus maculatus</i>	0.0.12	Arrival
*Spiny Seahorse	<i>Hippocampus sp.</i>	0.0.5	Arrival

## INVERTEBRATES

Pulse Coral	<i>Xenia sp.</i>	0.0.2	Arrival
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Key: Col. 1=Male. Col. 2=Female. Col. 3=Young or unknown. \*Rare/Endangered.

Printed by Rockliff Printing Group Ltd, Long Lane, Aintree, Liverpool