

# Zoo Life

Summer 2001 - Issue 6

CHESTER ZOO'S MAGAZINE FOR MEMBERS AND ADOPTERS



In this Issue: Bid for a holiday to Mauritius • 2001 Photographic Competition • Overseas Conservation

## From the Director's Desk

Professor Gordon McGregor Reid



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SINCE the last issue of *Zoo Life*, Foot and Mouth disease (FMD) has dominated our thoughts. There has, of course, been great concern to protect our animals from the disease, and to protect the Zoo and its staff from the consequences of closure in the face of FMD.

Foot and Mouth disease has caused deep suffering to the farming community. But the disastrous effects of this virulent outbreak have also had horrendous consequences for the much larger tourism industry, and in particular, to zoos. Most UK zoos closed voluntarily as the first reports of the disease were made known, in order to protect the animals and to undertake risk assessments.

Chester Zoo was closed for six weeks, with an estimated loss of £600,000 in income. During that time, only essential staff came into the Zoo, with many people working from home or on projects outside the core zoo area. Stephanie Sanderson, our Veterinary Officer and Shan Siah, the newly appointed Veterinary Resident, set a routine of examining all the susceptible species twice daily. I formed a Foot and Mouth Crisis Team and Stephanie, together with Curators Mark Pilgrim and Roger Wilkinson, kept us informed about all the latest information and advice from the Ministry of Agriculture, Fisheries and Food and other bodies.

Being closed during March was costly

enough; but the financial implication of being closed over the Easter holiday would be very serious indeed. We had to balance the risk of the disease entering the Zoo against the risk of financial ruin. Following talks with MAFF and the Federation of Zoos, we decided that we could re-open two weeks after the last outbreak within a 25-mile radius of the Zoo. This was 7th April – happily the first weekend of the school holidays.

Many precautionary measures were put in place to minimise the risk to the zoo animals. These followed the guidelines of the Government's Department of Culture, Media and Sport (DCMS) for tourist attractions, and included disinfectant straw at the car park entrance, disinfectant foot mats for all visitors and the closure of the Children's Farm and other areas holding susceptible stock. The giraffe and elephant houses were closed, but the animals could be seen on their islands.

The day before the planned opening, we welcomed the Deputy Prime Minister, John Prescott to the Zoo. The meeting was held in *Spirit of the Jaguar*, and Mr Prescott was most impressed with this world-class exhibit. The visit provided some superb media coverage, which meant that our Easter visits were better than we could have expected.

I have many people to thank for the support and help Chester Zoo has received

during this very difficult crisis. Firstly, the staff. Many offered to take a voluntary pay cut and also agreed to work 6 day weeks for 5 days pay over Easter, with no enhanced payment for working bank holidays. It was recognised that some people would be unable to take even a modest pay cut, and so the response was kept confidential, with only the personnel department knowing the details. I was greatly heartened to learn that over 90% responded positively.

My thanks too, to our members and adopters. Your contributions were practically the only income we had during March! In addition, many of you expressed your concern and support by sending good wishes and cheques.

Practical help also came from our local supermarkets. Safeway's store in Upton heard of our difficulties in obtaining red meat for the big cats, and came to the rescue with a very generous donation of meat. They also sent the left over fruit, vegetables and bread at the end of each day's trading, and Sainsbury's and ASDA kindly followed suit.

Many members of the public also offered help; schoolchildren organised collections; local hotels and restaurants asked for leaflets and posters to give us publicity; Marks and Spencer in Chester raised a large sum, and many other retailers put out collection boxes, with very generous response from their customers.

An extremely generous offer came from the touring company producing *'Dr Dolittle'* starring Philip Schofield. For every ticket sold during April for the performances at the Manchester Opera House and the Liverpool Empire, they donated £5.00 to the Zoo, raising an amazing £15,000+! A line-dancing concert arranged by Millie Parsons of our catering staff raised an incredible £6000! (See page 5).

In short, it has been very heart-warming indeed to realise that the Zoo is such a beloved organisation, with many supporters far and wide. On behalf of all the staff and council members – a very sincere 'Thank You!'

**Front Cover:** The first two Jaguars arrived from Rome just in time for Easter. These photographs show the beautiful markings on the male, Carlo.

(Left) Deputy Prime Minister John Prescott joins Chester MP Christine Russell, to let everyone know the Zoo is open for business.



## UK's TOP HONOUR FOR CHESTER ZOO



THE QUEEN'S AWARDS FOR ENTERPRISE 2000

CHESTER ZOO has been awarded the Queen's Award for Enterprise 2001, in the category of Sustainable Development – the only UK zoo so far honoured.

The criteria for the Awards states:

*A Queen's Award is the highest honour that can be bestowed on a UK business. To have a Queen's Award is to be acknowledged as the best in your field.*

The announcement of the Awards was made on 21 April, the Queen's birthday.

The Minister for Trade, Richard Caborn, said: 'The winners are some of the crème de la crème of Britain's businesses. They are the winners in our own Oscars for Enterprise. The Queen's Awards recognise the achievements behind the top UK business success stories, in the same way that an OBE or a knighthood recognises the contribution of an individual.'

These Awards differ from personal honours because they recognise the achievement of the successful business unit as a whole – management and employees working as a team. An Award is held for a period of five years from the date of its announcement.

The Awards are symbolised by the presentation of a hand-made crystal bowl. Chester Zoo's presentation will be made at the Zoo later this year by the Lord Lieutenant for Cheshire. Early next year, The Queen and the Duke of Edinburgh will give a reception at Buckingham Palace, inviting three representatives of each winning organisation.

### HIDDEN PLAQUES

With the Children's Farm, Elephant and Giraffe quarters, and hoofed stock paddocks presently 'off limits', we do appreciate that new adopters may not be able to see their Adoption plaques. Some plaques, such as the Tigers, are positioned inside a 'no-go' area. It is not really feasible to move the wooden frames that hold them, so please be patient with us until the risk of Foot and Mouth is over.

### MEMBER BENEFITS

The great value of a Chester Zoo membership card is now even greater! The reciprocal arrangement for free entry with other Federation Zoos now includes Paignton Zoo. The full list welcoming Chester Zoo members as their guests is now Bristol, Edinburgh, London, Marwell, Paignton, Whipsnade, Fota, Dublin and Belfast. Please note – this arrangement is for free entry for the card holder only, and does not include any additional benefits, such as half price tickets, offered by each zoo for its own members.

### MEMBERS' MEETINGS

**Saturday 13 October** – 2.30pm in the Lecture Theatre.

*Dr Bryan Carroll: 'The Western Indian Ocean Fruit Bats: Flying back from the edge of extinction'.* Dr Bryan Carroll is Operations Manager at Bristol Zoo, with responsibility for the animal collection, gardens, education and for developing research and conservation programmes. During the 18 years he spent at Jersey Zoo, Bryan carried out research on two of the world's rarest bat species – the Rodrigues and the Livingstone's fruit bats.

**Sat 17 November** – 2.30pm in the Lecture Theatre.

*Satish Kumar: 'Soil, Soul and Society'* Satish Kumar is the Editor of *Resurgence* Magazine and the guiding spirit behind a number of ecological, spiritual and educational ventures in Britain. His talk will elaborate on the importance of the three elements in the title for a sustainable future, a healthy planet and a just society.

**Sat 8 December** – 2.30pm in the Lecture Theatre

*Professor Brian Gardiner: 'Dinosaur Relationships'* A welcome return for Brian who is Member of Council, Past President of the Linnean Society and Emeritus Professor of Zoology at King's College of the University of London.

### TELL US WHAT YOU WOULD LIKE!

To help your Programme Committee plan better Members' meetings and events, we are asking for your help. Please fill in and return the questionnaire enclosed with this magazine. It will only take a few minutes, and you can use the special Freepost address too.

### ADOPTER DAYS

*This year's special days for all our animal adopters are Saturday 29 September and Sunday 14 October.*

*Full details and tickets will be sent with the Autumn magazine in September.*

### CHESTER ZOO 100 CLUB

The winners of recent prize draws are:

January 2001

£100 Mrs K. Peaker, Chester

£100 Mr H Keeley, Mold

£ 50 Mr J McKeown, Prenton

£ 50 Mrs Garbutt, Stockton on Tees

£ 50 Mr K Parks, Ormskirk

February 2001

£100 Miss J Haines-Adams, Oswestry

£100 Mr S Hamlett, Wirral

£ 50 Mrs W Spencer, Chester

£ 50 Mrs L Parsons, Liverpool

£ 50 Mrs T Hopkins, Bacup

March 2001

£100 Dr D Cooke, Ellesmere Port

£100 Mrs L Taylor, Rochdale

£ 50 Mrs K Holding, Ormskirk

£ 50 Mrs G Wayne, Chester

£ 50 Mrs E Roberts, Ellesmere Port.

*All prizewinners will be notified by post and will be listed in the next edition of Chester Zoo Life. Membership of the One Hundred Club is still invited. Please contact Alan Sykes or Maureen Allsopp if you would like to take part.*

# Zoo Review

## BID FOR A HOLIDAY TO MAURITIUS

AIR MAURITIUS and Sun International were kind enough to sponsor Chester Zoo's annual photographic competition for 2000 with a fabulous holiday for two to Mauritius.

Unfortunately, winner Ed Makin from Liverpool is unable to take the holiday

to Mauritius awarded to him. Following the Zoo's huge loss of income due to the foot and mouth crisis, Mr Makin has generously offered the prize back to the Zoo to auction off to raise funds to feed the animals.

The holiday is for two people,

### AIR MAURITIUS

flying from Manchester Airport. Accommodation is provided by Sun International at the resort of Le Coco Beach Hotel for six nights, based on half board – breakfast and dinner.

**The holiday will go to the highest bidder, with the bidding starting at £500. If there is more than one bid at the highest price, a draw will take place. Please put your bid in writing, and post to Holiday, Marketing Department, Chester Zoo, Upton-by-Chester, CH2 1LH. The envelopes will be opened on 31 June 2001.**

The offer is not available to employees of the North of England Zoological Society or their families.



## GOODBYE TO CHRIS Chief Curator Leaves

CHESTER ZOO'S Chief Curator Chris West (left) has left his post to pursue other projects.

In a highly successful curatorship, which he has held since 1997, Chris managed many important

programmes in conservation breeding. These have resulted in the rearing of the young of many threatened species, including Asian Elephant, Black Rhino, Maned Wolves, Bornean Orang utan, Wrinkled Hornbill and the British Sand Lizard.

Chris has also thoroughly revised the Zoo's animal collection plan. He has been deeply engaged in other major planning and development projects, including the greatly expanded Elephant area, *Islands in Danger*, the Black Rhino paddocks and the *Spirit of the Jaguar* complex. He has promoted research on various topics, including environmental enrichment and initiated an animal health and welfare review through the veterinary department.

Chris West has a strong enthusiasm for direct conservation activities. This has taken him to various locations including Central America to explore conservation options for Jaguar. He has also visited China, where he negotiated a twinning arrangement between Chester Zoo and Chengdu Zoo and Chengdu Giant Panda Breeding Base.

The Society is glad that Chris's services will not be lost to it altogether. He has agreed to undertake a number of important consultancy projects on the Society's behalf. These include, for example, in close conjunction with the Federation of Zoological Gardens of Great Britain and Ireland, the preparation of a comprehensive Elephant Management Manual for the use of Chester Zoo and the entire zoo community

The Chairman of the North of England Zoological Society, Keith Maybury, said 'Chris West has made a notable contribution to the Society's successes in recent years and we wish him all the very best for the future.'

## Artistic Acclaim

ANN BRIDGES (below), our 'Artist in Residence' had a solo exhibition of her work at Theatre Clwyd in Mold in the Spring, called 'Scratching the Surface.'

Zoo Director Gordon Reid opened the exhibition, with a tribute to the work that Ann has achieved during her time at the Zoo

'Ann has been Chester Zoo's guest for the past 18 months as Artist in Residence. She

has been the first artist to have a placement at the Zoo under a scheme organised and funded by the North West Arts Board and Chester City Council. The purpose of the scheme is to give the artist an opportunity to develop a working practice in a supportive and exciting environment.

'During this time Ann has had the opportunity to design and create artwork for the main entrances to *Islands in Danger* and *Spirit of the Jaguar* and the original pieces of artwork for both these projects are in the show. From her base at the Zoo, Ann has produced work for over 20 national and international exhibitions and in September 2000 she was invited to take up membership of the Royal Cambrian Academy.'



## Who's in the Bunny?

BECAUSE of the six week closure, and the uncertainty of an opening date, many of our expected Easter seasonal staff had found other jobs. So to cope with the Easter crowds, there were some very familiar faces in very unfamiliar settings!

Most of the office staff were working for Visitor Services; the Marketing Manager and the Estates Engineer were serving up hot dogs and ice cream from kiosks and our versatile Director showed that he was pretty adept at directing cars, clearing tables (see below) and picking up litter.

And on Easter Monday, as switchboard was trying to track him down, the Director's pager was heard coming from inside the Easter Bunny costume! (Wasn't it someone called McGregor who ate Peter Rabbit in a pie?).



## Help for Russia's Wild Tigers



▲ A conservation worker with one of the rescued tigers about to make his journey to survival.

WILD Amur Tigers have been badly affected by the severe winter in the Russian Far East. The special Tiger Response Team, set up by Russian authorities, appealed for tiger crates to hold and move wild tigers that had strayed into villages during the bad winter. Five UK zoos – including Chester – and seven European zoos responded, and the crates are now under construction in Moscow Zoo.

'This has been a terrible winter and has driven a great many tigers into villages looking for food,' said Sarah Christie, Conservation Programmes Co-ordinator for the Zoological Society of London. 'Tigers have been forced to prey on domestic animals such as dogs, and this leads to conflict with the local population.'

Chester Zoo was pleased to be able to help with the cost of one of these crates, which will be used to rescue the tigers and ensure that they can be moved to areas where they have some chance of survival.

There are only about 400 Amur (or Siberian) tigers left in the wild and this is the species held at Chester Zoo.

## New Merger for Finance Head

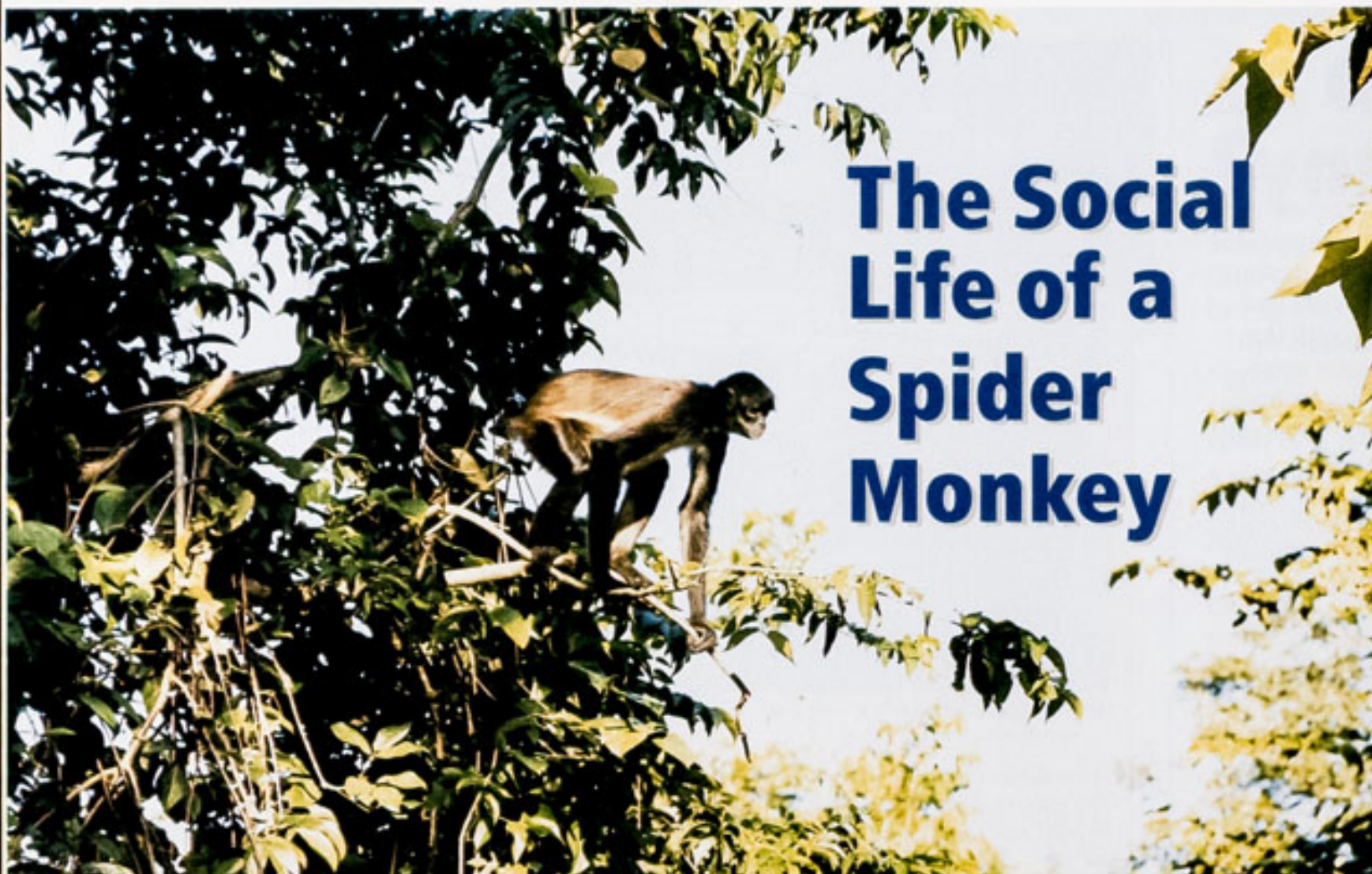
BEST WISHES and congratulations to Financial Controller Alan Sykes on his April wedding to Public Relations Executive Judy Alexandru. Zoo staff made a presentation and raised a glass to Alan and Judy on the day before the wedding.

## Let's Dance

MILLIE PARSONS of our catering department thought of a novel way of fund raising for the Zoo. Line Dancing! She organised a fun evening in April, and this incredibly successful event raised over £6000. Millie presented the cheque to the Zoo Director, Gordon McGregor Reid.

Millie Parsons (right) receives a surprise bouquet for her wonderful fund raising.





## The Social Life of a Spider Monkey

By  
**Dr Colleen Schaffner,**  
*a Lecturer in the  
 Psychology Department  
 at  
 Chester College  
 of  
 Higher  
 Education*

▲ Wild Spider Monkey in Punta Laguna – photo by Sid Williams.

*Colleen, together with her husband Filippo Aureli, a Senior Lecturer in the School of Biological and Earth Sciences at Liverpool John Moores University, has been carrying out research in the Zoo on the group of Colombian Black-faced Spider Monkeys, native to the forests of northern Colombia in South America. Visitors always enjoy watching the inter-actions of these animals on Monkey Islands.*

**I**N large communities of many adult males and females. Their community life is characterised by a fission-fusion social organisation. This means that although there are relatively large groups, the monkeys are nearly always found in smaller groups, from a single animal to between two to eight individuals. Individuals regularly regroup with different individuals. This system certainly shares parallels with how we live in our communities. The social system of Spider Monkeys is thought to

arise from their reliance on unpredictable and patchy food resources that are better exploited by smaller numbers of individuals. Watch the monkeys in the Zoo. They will show to visitors that they too follow such a pattern, as individuals within the group of five adult females, a single adult male and three young males are not often all together and often form different groups composed of different individuals.

This strategy of living separately, within a larger community is likely to influence the behaviour patterns that Spider Monkeys display. It is readily apparent after a few minutes in front of the Sulawasi Macaques, or watching the Chimpanzees, that Spider Monkeys do not squabble nearly as much as their relatives. In fact, observations on wild Spider Monkeys demonstrate that aggression is infrequent. But when it does occur it often leads to visible injuries! Andy Lenihan, Team Leader of the Primate Team and long time

observer of the Spider Monkeys, can attest that they are not very good at coping with increased tension in the group. So if they are not good at coping with aggression, and levels of aggression are generally low, then they might be good at avoiding the build up of tension. That is precisely what my husband Filippo and I are investigating as Research Associates.

### Greeting Behaviours

Previous observations of Spider Monkeys allude to several behaviours that might serve to maintain peaceful interactions among individuals. Possible candidates for reducing tension and avoiding conflict include face greetings, embraces, pectoral sniffing and whinny vocalisations. We define face greetings as the pursing of lips in a wide 'kissing-like' position, while in the direct view of another monkey. Face greetings are often accompanied by a high frequency whinny sound that is similar to that of a horse. Embracing is comparable to

what you would witness between human friends after a lengthy separation. The monkeys wrap their arm or arms around each other. What you would not likely see between two embracing people, is pectoral sniffing. The monkeys press their faces right into the chest and armpit region of the individual they embrace and inhale. In our study, which started about 18 months ago, we predicted that these behaviours would be associated with situations that would create the tension and the potential for aggression among individuals. We will let you know what we find out!

### Exploring hormones

Examining the function of greeting behaviours in reducing tension among the Chester group has not been our only research activity. We are also monitoring the monkeys' hormones. Keeper Nick Davis and myself are collecting urine samples about four days a week. We capitalise on the morning husbandry routine. When the keepers clean the enclosure, which involves shutting the monkeys out from their indoor housing, we stand underneath the monkeys with aluminium pans and collect any urine that happens to fall! It is a completely non-contact, non-training approach. We rely on the monkeys' tendency to monitor the keepers rather than wander off outside and the natural urge of most creatures to pee first thing in the morning! We are interested to see if unusual social events lead to changes in cortisol, the stress hormone. For example, does birth lead to an increase in stress as measured by cortisol for the mother or other group members? Do cortisol values change in correspondence with fluctuating

numbers of zoo visitors? We are also monitoring testosterone levels in the young males to assess the developmental profile of the hormone over time. This is of particular interest if females are born, as Spider Monkeys lack sex differences in size and the females have dramatically elongated genitalia (to put it mildly), all of which may arise from high testosterone output in young females. Therefore, we hope to compare the testosterone levels in developing males and females to tease out its role in how males and females grow up. I have a theory that high testosterone in females may be another strategy to avoid conflict between the sexes.

### Field work

Finally, we are using the lessons suggested by watching the Chester Spider Monkeys and applying them to this species in the wild. Currently, Filippo and his post-graduate student, Kim Matthews, are investigating Spider Monkeys at the Santa Rosa Nature

of groups. They are also monitoring the food sources and relating this to the variable small group composition. We have received support from Chester Zoo in this project. Nick Davis recently donated a month at the field site to assist Kim. We have also just established formal research ties with another nature reserve in the Yucatan peninsula of Mexico, Punta Laguna. The spider monkeys at Punta Laguna live in short trees and are all individually recognised. This allows us to investigate our ideas of conflict management, generated by watching the Chester group, in great detail in wild Spider monkeys.

### Applications

Collectively, our research examines aspects of Spider Monkey social life that will hopefully be useful in managing captive and wild populations in the future. Currently, no one knows how many Colombian Black-faced Spider Monkeys remain in the wild. Political instability makes it difficult for researchers to conduct the most basic studies in Colombia, and all primates cope with decreasing viable forest habitats. Understanding how Spider Monkeys establish and maintain stable relationships may provide a key component in



◀ Chester Zoo Spider Monkey.

Reserve in Costa Rica. They are collecting similar information on greeting behaviours and their association with the fission and fusion

helping them survive. One lesson that is important for the Chester Zoo group is to avoid situations that could lead to increased tension and outbreaks of aggression. One such situation arises when visitors toss highly prized and unusual foods into the enclosure. Hence feeding by visitors not only upsets their balanced diets and communicates disease; it can also lead to increased tension, aggression and injury.

## 2001 – a South American Odyssey



### at Chester Zoo

**Here's a quick reminder that '2001 – A South American Odyssey', our activity week for children, is fast approaching. The programme is almost complete. Look back in the last issue for more details, but here's what we are planning to do.**

#### Monday 13 August

*The Odyssey Begins* – with Dave and Sue Shaw, we'll be introducing the South American continent, using artefacts, games and craftwork.

#### Tuesday 14 August

*Los Animales* – how much do you know about some of the Zoo's wilder inhabitants?

#### Wednesday 15 August

*Culture Vulture* – Dave and Sue return to lead this day concentrating on the different people that live in South America.

#### Thursday 16 August

*Roots and Shoots* – all life depends on plants and today we will be concentrating on some of the plants in our newly created rainforest in Spirit of the Jaguar.

#### Friday 17 August

*Jungle Beats* – featuring Caliché who will bring the sounds of South America to Chester Zoo.

Don't forget about the **Activity Days** we hold all year round.

Still to come this year:

*Monkeys, Apes and Man* on 29 September;

*Bats* on 25 October and

*Dinosaur Experience* on 8 December.

For more information and a booking form, please email

[education@chesterzoo.co.uk](mailto:education@chesterzoo.co.uk) or telephone 01244 650205.

## THEME EVENINGS IN THE ZOO

**Enjoy a Summer evening in the Zoo, after the grounds are closed to visitors! These events are very popular, so we advise early booking**

#### Friday 15 June

##### Evening Safari and BBQ

Have cocktails in the *Twilight Zone* and meet the chimps, followed by a great barbecue on the Oakfield Terrace.

**£21.95 per person. Booking essential**

#### Thursday 21 June

##### Midsummer Cycle

Enjoy a bicycle ride through the Zoo. Admission from 6.30pm – last entry 7.15 pm. Price includes a fish and chip supper in the Ark Restaurant.

**£8.00 adults; £6.00 children 3 – 15 years.**

**Bring your own bike!**

*(Please note that animal houses will not be open)*

#### Friday 13 July

##### Primate Evening and Dinner

Meet our keepers during an evening visit to the Chimpanzee and Orang utan breeding centres. A three course dinner served in the Oakfield Restaurant rounds off the evening. A 'Keeper for a Day' prize will be raffled at the end of the evening.

**£22.95 per person. Booking essential.**

#### Friday 27 July

##### Evening Jaguar Experience and Dinner

Enjoy drinks in our new *Spirit of the Jaguar* followed by dinner in the Oakfield Restaurant.

**£22.95 per person. Booking Essential**

**For further information and booking details, please ring The Events Office on 01244 650209 (Monday – Friday)**

# 2001 – CHESTER ZOO Photographic Competition



▲ A May Merit Award goes to Sheila Hall from Halifax for this splendid picture of Emma and Subis.

**THE entry forms for the 2001 competition are now available at the Zoo – and, as usual, there are some great prizes on offer!**

- ☆ The prize for the overall best entry in the competition, from any of the categories, will win two return tickets to New York, flying from Manchester Airport, with British Airways.
- ☆ The judges will choose this from the five winners of each category. The runner up in the section from which the 'best in competition' is chosen will be awarded the first prize in that section.
- ☆ The subject is 'My Favourite Chester Zoo Photograph of 2001' and all entries must have been taken in the Zoo this year. There are five different categories – Prints, Slides, Gardens, Juniors and Digital.
- ☆ First prize in the Print section is a three-night break for two people, including bed, breakfast and evening meal, at any UK Post House Hotel. The runner up in this section will have a year's free photography – 52 rolls of film and free processing from Max Spielmann.
- ☆ In the Slide section, the winner will receive a Kodak digital camera. As the prize giving is not until next January, Kodak can't tell us which model this will be – things are moving fast in this field. The second

prize is £100 worth of photography vouchers – half from Ness Photo Laboratory and half from Calumet.

- ☆ The Gardens section best print photographer will win the *Bridgemere Garden World* trophy – to be held for one year – plus £100 Bridgemere gift token. The best slide in this section will win a Jessops voucher for £75.
- ☆ The Junior section is open to everyone under 16 on 31 October 2001. The first prize is a £100 gift voucher to spend at Borders Book Stores, and the second prize is £60 Borders voucher.
- ☆ For the best digital photograph, there is a Jessops voucher for £75 and the runner up will receive a Ness Photo Laboratory voucher for £50.
- ☆ Last year there was some confusion about digital photography. Some entries in the print section had been scanned into a computer and digitally modified. This is not acceptable for the print category. Photographs treated in this way should be entered into the digital section, together with photographs taken with a digital camera and printed out.

**The closing date is 31st October – but don't save up your entries until then. We will be awarding merit prizes of Zoo family tickets and Kodak film for the best entries each month. So enter early – you might win twice!**

THE Pantaneiro's horse in front of me bolted and turned sideways. I pulled the reins of mine and waited. The Pantaneiro was looking into the shallow water that surrounded us. "Sucuri!" he said with a nervous smile – Anaconda! I edged my horse closer, carefully. A fifteen-foot long snake lay in the water, guarding the path through a reed bed that we were travelling along.

We decided to take the longer route around the reeds. The water became deeper and was beginning to rise above the horse's belly. This was quite normal. It was the end of the wet season in the Pantanal and the horses and ranch workers (or Pantaneiros) were used to wading through the swamp. I was getting used to it too and I had long given up the idea of keeping my boots dry, just as I had come to realise that walking past a Caiman within arm's reach was not really something to worry about.

Yet I couldn't help recall last night's conversation over Piranha Soup with the ranch owner. The grandfather of the owner of a ranch 50km from here was eaten by pirhanas one morning when he

## Jaguars and Ranchers

*Jaguars are certainly the high profile animals this issue! Conservation Officer Alexandra Zimmermann recently travelled to the northern part of the vast Pantanal area of South America to research what measures can be taken to prevent ranchers from killing Jaguars.*

went for a swim. Was it true? I didn't try to find out. I had bleeding cuts on my shins from riding through thorny bush earlier, and these waters were bound to have piranhas in them. Leaving the stirrups dangling I pulled my legs out of

In the Pantanal, cattle usually roam freely with wildlife on vast ranches.



Transpantanal Bridge. Tourism in the Pantanal is a potential goldmine but requires careful planning (and a few repairs!)



the water and wondered how much farther we had to go.

We were looking for a Jaguar. The ranch owner had seen its fresh tracks yesterday and told one of his Pantaneiros to take me with him to 'shoo it away'. I knew he was joking. The chance of finding a Jaguar during the day were nil and if a cattle rancher in the Pantanal does see a Jaguar, he doesn't scare it away, he shoots it. Though perhaps not when accompanied by a foreign conservationist investigating the problem of Jaguar-rancher conflict.

### Jaguar-Rancher Conflict

The world over, wildlife is forced into small refuges adjacent to farmland and pasture. The natural prey of carnivores is all too often depleted, so predators succumb to the temptation of the easy domestic prey that constitutes local people's livelihood. Wildlife-human conflict is one of the most difficult conservation problems to tackle. In many cattle ranching operations in Central and South America, livestock roam freely and ranchers shoot Jaguars suspected of taking cattle. Whilst the fur trade once decimated Jaguar populations, now Jaguar-rancher conflict is the most serious problem. In the Pantanal for example, 68 Jaguars were killed over the course of eight years on one ranch alone.

### The Pantanal

The Pantanal is the largest wetland in the world and spans the borders of Brazil, Bolivia and Paraguay, covering an area approximately the size of the United Kingdom. It is one of the richest places on

earth in terms of wildlife, often named the South American equivalent of East Africa for nature watching. About 670 species of birds, 450 species of fish, 500 butterflies and 64 mammals are known from the region. When the region was first claimed by European settlers, enormous tracts of land were placed for sale for cattle ranching, so that the early ranches were frequently in the size order of five million hectares. Ranches were traditionally divided amongst sons and the largest of today's ranches are around 130,000 hectares in area. Nowadays nearly all (98%) of the Pantanal is still privately owned.

Although still pristine relative to many other areas of the tropics, the Pantanal is imperilled by a range of environmental threats, including soil erosion, deforestation, pollution, agrochemicals, mercury and effluents. Wildlife, too, is under direct threat and the enforcement of wildlife law is a near impossible task in the remote and vast Pantanal.

### The Study

I had travelled to the northern part of the Pantanal to find out not what could be done to prevent Jaguars from taking cattle, but what could prevent ranchers from shooting Jaguars. In other words, I was looking at a wildlife-human conflict scenario from the anthropological angle rather than the biological side.

With funding support from Chester Zoo, the Durrell Institute of Conservation and Ecology and British Airways Assisting Conservation, I carried out interviews with 50 ranchers in an area 1½ times the size of Wales, gathering both facts and

opinions about the issue. Carrying out these interviews was a logistical feat as most ranches can only be reached by aircraft or boat, so I arranged to meet ranchers when they came to town for supplies or at cattle auctions and lasso club events.

The survey showed that Jaguar attacks on cattle occur frequently and that this poses an economic problem to the ranchers. Jaguars are still frequently shot, but opinions about the issue are very varied. Many ranchers told me that they felt Jaguars are beautiful animals, part of the natural heritage and they would not like to see them go extinct, but that their attacking cattle was a real problem that could not be tolerated. However, all ranchers felt that the Pantanal is a national treasure that is not adequately protected, and nearly all wished to communicate more with conservationists.

### Solving the Problem

With any given conservation problem there is always a range of possible strategies, and the best approach can be found if baseline conditions for the specific scenario are carefully examined and the people affected are consulted and involved. For the case of Jaguar-rancher conflict in the Pantanal, Compensation is not a solution but a symptomatic treatment of the problem that would be particularly difficult to implement logistically. Similarly, Translocation of problem animals is very costly and in the Pantanal would mean moving Jaguars from one ranch into another. The enforcement of laws is also logistically so difficult in the Pantanal that legal

### The Jaguar (*Panthera onca*)

- largest terrestrial predator of the Americas and third largest cat in the world
- still found in many habitats from southern USA to northern Argentina, but in most places its habitat is shrinking quickly forcing overlap with human territory and leading to serious problems

### Conservation Status:

- IUCN 2000: LRnt (Lower Risk, near threatened)
- CITES Appendix I
- Population: est. 10,000 – 15,000

### Threats:

- Habitat loss and fragmentation
- Conflict with humans (persecution)
- Wildlife trade (jaguar pelts)

penalties are not an option. Therefore, self-enforcing strategies (called Incentive Measures) are needed. The incentive for ranchers in the Pantanal not to shoot Jaguars boils down mostly to widespread interest to become involved in eco-tourism in the future. Tourism in the Pantanal is still in its infancy but holds great potential. The current level of infrastructure is a major obstacle to the development of large scale tourism but the Pantanal has much to offer in terms of scenic beauty, wildlife viewing, bird watching and photo safaris. Finally, Sustainable Use might be a future direction to consider. The information gathered suggested that carefully monitored trophy hunting of Jaguars could work as a tool for conservation if the necessary research and preparations are carried out beforehand.

So, relative to other conservation hotspot areas around the world, the Pantanal has good prerequisites for conservation and sustainable development. Firstly, it is almost entirely privately owned, which is part of the reason it is still in a very good state compared to other tropical hotspots in the world. Secondly, awareness and appreciation of the Pantanal as a national treasure is widespread. And thirdly, most ranchers feel that not enough is being done to protect the Pantanal and there is strong a general concern about its future.

We never did find the Jaguar we were meant to scare away. There were fresh tracks in the mud and a rustle in the thorn bushes nearby, but virtually no-one ever sees the cat itself.

Caiman of the Pantanal. Once threatened from poaching, now recovering well.



I HAD not expected my crochet skills to be needed on this project! Our first Echo Parakeet was hatched on 21 September and weighed 8.5 grammes and we had the problem of her possibly imprinting on humans

So I made her a crochet Echo that she could snuggle up to like a sibling chick. Later on we substituted it for a mirror and she took great interest in staring at the 'other' chick and trying to touch it with her foot.

The wild Echo chicks began to arrive as the availability of fruit in the Black River Gorges National Park began to dwindle. The males were having to travel much further to fetch food and were not returning food to the nest site. This meant the females had to find their own food and the chicks were becoming very malnourished and dehydrated. The nests were watched daily and when the birds left to feed, the chicks were weighed. Any in difficulty were brought down to us, but we tried to leave the birds with one or two chicks to rear themselves. At first we were taking only the strongest chick to finish off rearing at the aviaries, but as the fruit supply began to fail, we took any that were in trouble.

It was imperative to get fluids into them, and we fed hydrating fluids and glucose every hour. As they improved we slowly introduced the chick rearing formula. This was given at a much weaker solution than normal, as their crops were very slow at absorbing the food. If the chicks were very young, we tried to foster them under female Echos so that they would obtain the vital gut flora. But to do this, the youngsters had to be removed at around nine days old, before the adult started plucking the chicks the first moment a bright green feather emerged from its sheath. In the rearing room, they quickly taught each other how to wean onto the vast array of fruit and vegetables available. The weekly visit to the fruit market was amazing, with so many products I had never seen before.

The first of our Echo chicks, *Aranxtia*, had her 'weaning box' as a place she could hide in, inside an aviary. The chicks reared the previous year are unfortunately incredibly tame and we



▲ Anne with *Aranxtia*, the first Echo chick of the season.

## ECHOS of MAURITIUS

**In October Bird Keeper Anne Morris flew to Mauritius, to spend three months helping to hand-rear the rare and critically endangered Echo Parakeet. She was working for the Mauritius Wildlife Foundation, under the guidance of Dr Carl Jones. This is Anne's account of her time on this beautiful island.**

wanted our youngsters to have contact with other Echos as soon as possible to prevent imprinting. So, as *Aranxtia* was climbing out of her weaning box at 41 days old – using her fruit kebabs as escape ladders! – we placed her in an outside aviary, giving the opportunity of access between herself and the youngsters. The small cage she was in formed a safety barrier in case of

aggression. Within minutes three Echos came to see her, climbing onto her cage and trying to steal her food. At first she was brought in at night. But with the nights being hot and balmy, she stayed out in her cage permanently from 52 days. She enjoyed the rain bath which all the birds have daily, with a sprinkler system. By 63 days she was flying around the aviary and *Carlos*, our second chick, was introduced.

We had a golden opportunity to be part of the re-introduction programme, and I took the first five Echo chicks up to camp in the Gorges, and Dave Rodda – a New Zealander – was to take the other six later on. Blood tests showed that 'my' five were three females – *Aranxtia*, *Carlos* and *Talisker* – and two males – *Titi* and *Macumba*. Just before dark on 23 December, we set off by jeep, with the birds in pet carriers. They were vocal all the way on the bumpy journey, but soon settled into their new holding aviary, filled with native foliage. They settled for the night in a row on one branch. We had a sleepless night, hoping they would be all right, as the evenings at camp are very cold. We now had to teach the chicks to use the feed hoppers containing food pellets. When they are released they will join the wild birds using the hoppers for supplementary feeds. Instead of speaking, we used a whistle and shook a seed tub, so they would associate the whistle with food. This would be useful after release, when we wanted the birds to come back to the aviary.

We taught the youngsters not to go on the floor to feed, where they would be victims to predators – monkeys, mongoose or cats. We made a feeding log to hold native seeds. Other feeding enrichment devices included spiking apples studded with seeds onto branches and sprinkling pine cones with seeds.

We attached a bowl filled with seeds to a small kitchen scale to entice the chicks to be weighed. A blow on the whistle, a shake of the seed container – and the birds soon grasped the concept. Small falconry bells were attached to the tail feather so we could hear the chicks when they were released.

One compartment in the aviary was

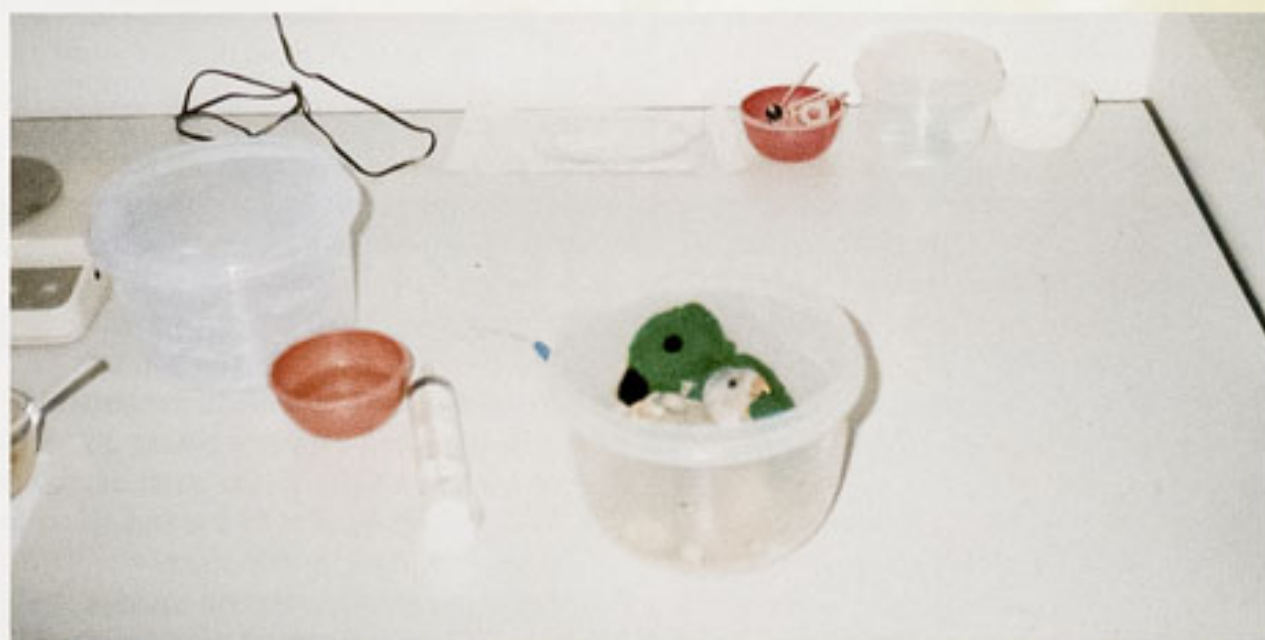


**ABOVE:** Titi thinks about getting on the scale.

**ABOVE RIGHT:** 'Whistle and I'll come.' The chicks were lured onto the weighing scale by a whistle and some seed.

**MIDDLE:** Aranxtia with her crocheted sibling!

**BOTTOM:** Aranxtia out on the release edge, eating seed.



left open so that wild Echos could visit. The first soft release, on New Year's Day, was abandoned as storm clouds came in and the wind picked up. The next night, Titi went out first, followed by Aranxtia. Carlos was not keen and went back inside. Titi and Aranxtia flew into nearby trees and roosted together overnight. We could hear their tail bells in the dark. No one slept much as it was wet and windy overnight and at 5.30 am we called them back in with whistle and tub shaking routine. By the time I left on 15 January the chicks were all flying free around the camp. A wonderful sight!

■ As well as hand-rearing the Echo Parakeets, Anne also had the opportunity to work with Fruit Bats, Kestrel chicks, and other Mauritius species. Her account will appear in the Autumn issue of *Zoo Life*.

# Protecting our animals from Foot and Mouth Disease

THE Foot and Mouth Disease crisis has had a major impact on Chester Zoo. We have all worked hard to protect our animals as best we can and, with the co-operation of our visitors, we hope that they will all escape infection.

Foot and Mouth Disease (FMD) is a highly infectious disease causing severe and very painful blisters in the mouth and on the feet of affected adult animals and killing up to 90% of youngsters. All cloven-hoofed animals are thought to be susceptible (e.g. babirusa, giraffe, antelope, camels) and also certain other animals such as elephants, tapirs and porcupines. More than 200 individuals here at Chester Zoo could potentially suffer from FMD.

The FMD virus can pass from animal to animal not only by direct contact (one infected animal touching a non infected one) but also by mechanical means (virus transferred on clothing, tyres, hands, food etc). Humans who have had direct contact with livestock can also harbour virus at the back of their throats and breathe it out for up to a week. As we banned all movement of susceptible stock into the collection from 20 February, the main threat is that the virus is brought into the Zoo by vehicles, supplies and people. At the beginning of the outbreak we formed an FMD crisis committee to perform daily risk assessments and discuss how best we could protect our animals.

We have been in regular contact with the Federation of Zoos, British Veterinary Association, BVZS (British Veterinary

*Stephanie Sanderson, the Zoo's Veterinary Officer, could not have expected Foot and Mouth Disease to become a major concern in her professional life. There had been no UK cases in her lifetime, and no one could have predicted its vicious return. But over the past couple of months, Stephanie, together with Sian Siah, the newly appointed Veterinary Resident, and Curators Mark Pilgrim and Dr Roger Wilkinson, has had a very steep learning curve on all aspects of this virulent disease.*

Zoological Society) as well as monitoring the Ministry of Agriculture, Fisheries and Food website and talking to our local MAFF officers.

Initially, whilst the daily count of cases was rising sharply, we decided that the best option was to close the Zoo and restrict entry of personnel and supplies to a bare minimum. However as the pattern of disease became clearer we were able to refine our procedures to the point of allowing visitors back in to the Zoo.

Precautions now involve strict quarantining of all susceptible species. When walking round the Zoo, visitors will notice that some pathways and houses are closed. This is to prevent any contaminated person or object coming in contact with a susceptible animal or its enclosure. Only designated staff are

allowed to enter the restricted areas and then they must wear disposable boiler suits and specially disinfected footwear. If any staff members have had any contact with livestock or farmland, they are not able to come to the Zoo for at least one week following the contact. All food and supplies are checked carefully and disinfected before being taken into a restricted area. These procedures are a lot of extra work for the staff, but no effort is too great if it means we can protect our animals from the dreadful disease. Visitors can also do their part. We ask them to defer their visit if they have come into contact with livestock or farm land in the last week, to drive through a disinfectant wheel wash as they enter the car park and walk over disinfectant matting as they enter the core zoo. It is also particularly important that they take care not to drop any litter or food into the animal enclosures as this could be a source of them acquiring the virus. We will maintain these precautions for as long as the FMD crisis continues. Our FMD committee continues to meet on a weekly basis to examine the risk and refine our procedures. At the time of writing (late May) the disease seems to be coming under control but great care will be needed in case of further local outbreaks. There is still a long way to go. Our visitors have been very supportive and whilst we regret that some of the pathways and houses are closed, almost all of the animals are still on view especially if you take the monorail and water bus.

▼ For six weeks visitors were species on the brink of extinction in the Zoo! This picture was taken on Easter Monday, when we welcomed more than 16,000 people back through the gates.



## Memories in words . . .

### Portrait of a Legacy Pledger

**O**UR Legacy Pledge Club continues to grow, with more Zoo supporters promising to mention the Zoo in their wills. Member Jean Coley describes herself as 'an ordinary person who just adores animals, wildlife and nature'.

A native of St Helens, Jean is now retired. Among her great loves are her Yorkie Terrier, her garden and, of course, Chester Zoo!

'I first visited with my parents when I was about 10 years old. Things were very different then. Until about 20 years ago you had to pay again to visit the *Tropical House*. I still love going there.

'My favourites are the Orang utans, with their colour and sheer size. The male is wonderful, with his big cheek pouches and I love to see the females with their young – such big hands, yet so tender. I find their antics adorable, especially when the young ones play with sacks, rolling

over and over with them on their heads. I once saw a youngster doing this and getting so carried away he ended up falling from the platform, only to climb back and begin again!

'I especially remember one Orang utan called *Charlie*. One day workmen left behind a pair of overalls, and *Charlie* tried them on. This was reported on the local television.

The new Elephant enclosure is marvellous. Nowadays, there is more knowledge about natural habitats and this is apparent in the modern enclosures and interpretation. People still want to look at exotic animals, but now they can learn about the threat to their survival in the wild, and about the breeding programmes run by Chester, and other zoos, to ensure they don't become extinct.

'I made my will out to Chester Zoo because I am single, and have no heirs. If I didn't bother to make a will, my estate

would either go to a relation I don't know, or to the Government. Places like Chester Zoo are protecting species for tomorrow, as well as educating people and making our children more aware of the world they will inherit.

'I chose Chester Zoo because when my mother needed to be pushed in a wheel chair, we visited the Zoo regularly. Like me, my mother loved animals. She loved to sit on the bench where the avenue of trees used to be, near to the Chimpanzees and watch the animals, as well as the people go by.

'The tigers were one of her favourites – she always said she'd like to take one home with her! We had some really nice days out at the Zoo and I have some very happy memories.'

For more information about the Legacy Pledge Club, please contact Hazel Russell in the Development Office on 01244 650229 or at [h.russell@chesterzoo.co.uk](mailto:h.russell@chesterzoo.co.uk)

## and Memories in pictures . . .

### Nonagenarian Harry Prandle remembers his days as a Chester Zoo Keeper.



IT is 25 years since Harry Prandle, now 90 years old, retired from the Zoo, after working as a keeper for the previous 25 years. He worked on what was then called the '*Whipsnade*' section, caring for lions, tigers, sealions and polar bears.

His daughter Mrs Sue Holloran called in at the Zoo with some of the photographs her father treasures from his zoo days. As a teenager, Sue herself had close links with the Zoo. She used to baby-sit in the lodge by the staff entrance for the then Curator, Peter Bloom and his wife. She often found that in addition to caring for the Bloom's two children, there were also young hand-reared animals in her charge!



Left: Harry Prandle at Sealion feeding time.

Top right: Sue Holloran – Harry's daughter – with two of her baby sitting charges.

Bottom right: Polar bear cub Mottie with his mother.



ON the first day of the year, Senior Reptile Keeper Sarah Cocks was fortunate enough to exchange the ice and snow of Chester for the sun and sand of Egypt to work with the endangered tortoises that are part of the Egyptian Tortoise Project. She travelled to Cairo with Esther Wenman, Head Keeper of Reptiles, London Zoo and Gian Lorenzo D'Alterio a vet from Bristol University.

### Why is the Egyptian Tortoise under threat?

THE Egyptian Tortoise (*Testudo kleinmanni*) is one of the world's most endangered tortoises. It was once found in the arid deserts bordering the Mediterranean from Libya to Israel. Now it is restricted to a few fragmented areas in Egypt and is no longer known in Libya.

The two main threats are habitat destruction and the pet trade. The tortoise's natural habitats are disappearing at an alarming rate, due mainly to tourism development, land reclamation, quarrying and overgrazing. The pet trade is responsible for huge numbers of tortoises being taken from the wild. Most of these animals will die and this trade has resulted in the massive decline in populations in Egypt and, more recently, Libya. Many of these animals are destined for mainland Europe and the United States.

The Egyptian Tortoise Project was established in 1997 after a police raid on the Saiyyida Aisha animal market in Cairo led to the confiscation of over 300 tortoises. The Egyptian Environmental Affairs Agency (EEAA), who were responsible for the raid, did not have the facilities to look after such a large number of animals, all of which were suffering from pneumonia and dehydration.



◀ Taking blood from a wild tortoise.

# SAVING THE EGYPTIAN TORTOISE



▲ Gian Lorenzo, Sarah and Mohamed. Lunch break during the wild tortoise hunt.

A number of organisations offered to help, including the Tortoise Trust UK and the Zoological Society of London. More than 200 of them were housed on a rooftop in Cairo where, with a lot of hard work, their health slowly improved.

Several weeks were spent surveying desert regions in northern Sinai to determine whether tortoises still occurred there. This area is known to be a former habitat and the study hoped to identify suitable sites for a release programme. The Zaranik Protected Area in northern Sinai was selected.

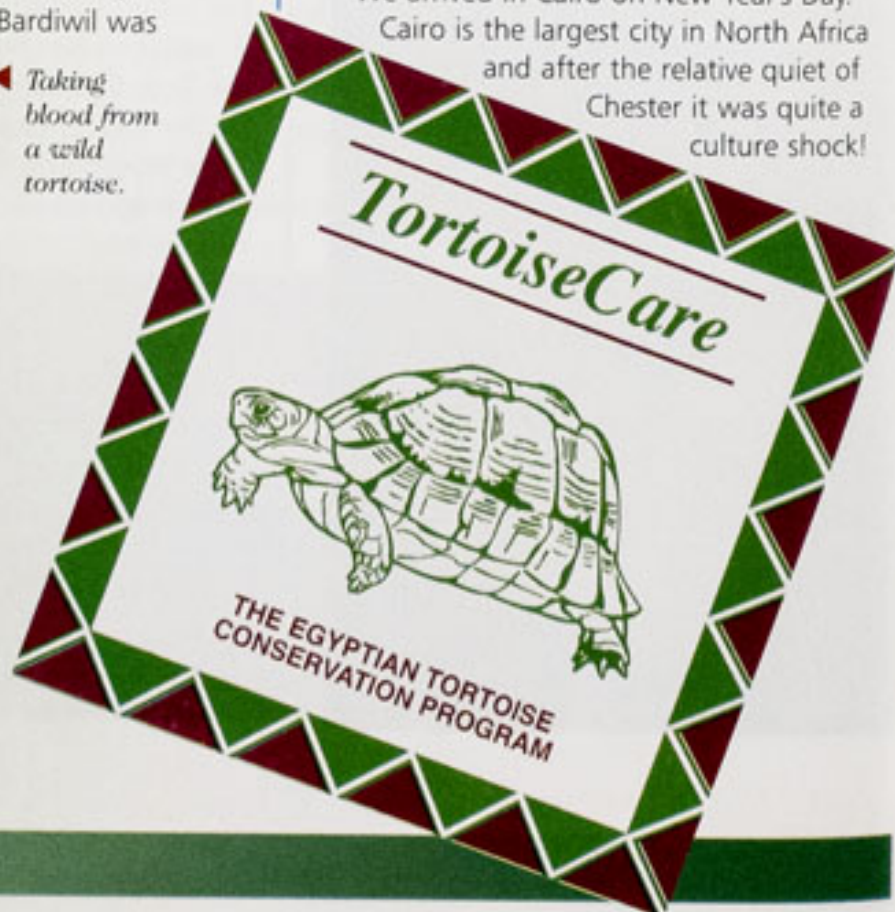
Within the Zaranik reserve a small, uninhabited island in Lake Bardiwil was

surveyed as a possible release site for some of the seized tortoises. Lake Bardiwil is saline and spans over 60km of the Mediterranean coast of north Sinai and contains one of the most important bird reserves in the Middle East.

### Project Update

It is four years since the project was established and a lot of changes have been made. The purpose of our visit was to check on the health of the tortoises and the progress of the project in Egypt.

We arrived in Cairo on New Year's Day. Cairo is the largest city in North Africa and after the relative quiet of Chester it was quite a culture shock!





▲ One of the captive Egyptian Tortoises.

Even my first views of the city and the Nile did not take away the terror of travelling by taxi through Cairo's crowded streets – where there are no pedestrian crossings or traffic lights, and everyone has right of way!

We went first to the home of Sherif Baha El Din and his wife Mindy. Sherif is an Egyptian nature expert and ornithologist who is the project co-ordinator. They made me very welcome and after a long day it was a relief to finally fall into bed.

The next couple of days were spent working at the rooftop site in the Agouza district. This is sectioned off into a number of separate enclosures and each tortoise is numbered for identification. Micke, a student from the American University in Cairo who is looking after these tortoises, was concerned about the health of some of the animals. A number of them were suffering from Runny Nose Syndrome (RNS), a highly contagious viral infection, which can be fatal in extreme cases.

We weighed all the tortoises and we were able to compare these to previous weights. We also took faecal samples to be checked for parasites, and blood samples to take back to the UK for analysis. All the tortoises suffering from RNS were put on to a course of antibiotics.

There are also tortoises from the 1997 seizure at three other locations. We visited Wadi Farm, an organic olive farm about 50km outside of Cairo, where the owner has built a semi-natural enclosure for the tortoises and has nearly completed a second enclosure for the 200 or so babies hatched at the rooftop in 2000. We found them all to be in good health. There were even a few babies that had hatched in September 2000.

Later we returned to Wadi farm to work on the new enclosure. It was important to check the perimeter walls to ensure that there were no possible escape routes. The

enclosure also needed planting with grasses and other plants for the tortoises to feed on. We also spent a day at a German owned organic vegetable farm, Sekem, where they have a group of 10 tortoises.

The next, and most exciting part of the trip for me, was a visit to Zaranik Protected Area. The field centre was basically equipped but comfortable and did have running water – but only of the freezing cold, wake-you-up-in-the-morning variety!

There are three purpose built enclosures, maintained by the local Bedouin. Our first day was spent finding all the tortoises in the large enclosures and, again, weighing and taking blood samples. As at Wadi Farm, their overall health was very good.

On the second day we went over to the island in Lake Bardiwil to try and find some of the 10 tortoises that had been released there in 1999. Unfortunately, although we spent many hours looking, we did not find any. Local Bedouin told us they had seen at least three recently. The purpose of the release was to gain a better understanding of behaviour and feeding. This helps assess the size, type and management structure of reserves and the subsequent impact on the local communities.

Later, two of the Bedouin, Mousa and Mohamed, accompanied us out into the desert to search for wild tortoises. We found a number of tortoise tracks but no animals. We were about to give up hope when finally a tortoise was spotted. It was a small female, weighing only about 160 grammes, and she was known to have been living in that area for more than 20 years. This was the first wild tortoise I had seen and it was an exciting moment – the highlight of the trip! Samples of blood were taken to be used for DNA assessment and clinical comparison with captive specimens.

The few days that we spent in Zaranik

were an incredible experience. The Bedouin were extremely friendly and invited us to their camp for tea. Even though my Arabic was limited to *yes, no* and *thank you* we were still able to communicate – often by drawing pictures in the sand!

## What does the future hold?

The Egyptian Tortoise has been listed under Appendix I of CITES (Convention on the Trade in Endangered Species) and is protected under Egyptian law. However, although their sale is prohibited, the trade has continued. Fortunately there has been improved conservation and public awareness in Egypt, through education, leaflets, a community craft programme and the development of the enclosures.

There are now two new protected areas in Western areas of former tortoise habitat, enabling the project to concentrate on keeping potential subspecies or races separated. Links have also been established in Libya, to confirm the status of the species there.

Gian Lorenzo is completing his database of previously unknown clinical information for the species and is providing much needed veterinary support for the confiscated animals.

Currently the Egyptian Tortoise is on the road to extinction and more action is needed if the species is to be saved. The project in Egypt, backed up by a UK breeding programme, will hopefully ensure the survival of this species. Chester Zoo currently holds eight young Egyptian Tortoises and is proud to be contributing to this important conservation programme.

**I would like to thank Esther and Gian Lorenzo for looking after me in Egypt; without them I would have been terrified! My thanks also to my colleagues Isolde and Steve for their support and to Sherif and Mindy and all the Bedouin who made me so welcome in Egypt.**



▲ Weighing a baby tortoise.

**In February, Primate Keepers Chris Yarwood and Geoff Harper, together with Zoo Blacksmith Dixie Read went on a mission to Borneo, to help orphaned Orang utans. Chris Yarwood (pictured below) reports.**

**A**T the end of last year the Zoo was approached by Sue Sheward, from Surrey. Sue had done some voluntary work at Sepilok Nature Reserve in Sabah, North Borneo the previous year, helping out with orphaned infant Orang utans on their first steps towards rehabilitation.

Over the last couple of years the centre had been put under enormous strain, both financially and in terms of manpower, due to the large number of infant Orang utans arriving there. The rehabilitation of Orang utans can be a long, time-consuming process, especially when the infants are in a very poor condition upon arrival. Once the infants



Photo by Geoff Harper

## ZOO HELP FOR WILD ORANG UTANS

recover their health they need to learn how to cope with living in the rainforest and that includes learning to climb. When out of quarantine, the youngsters are taken outside daily, to play on ropes under supervision (which takes up lots of precious work time), or be placed in a cage where they can be left unsupervised. This stage allows the Orang utans to experience the elements, encourages muscle development, improves co-ordination and leads to the next stage of rehabilitation in the forest. The cage that was being used at the time Sue was at the centre was of use only to the smaller infants, due to its size. Also, thanks to the humidity, it was beginning to rust at an incredible rate.

On her arrival back in England, with the permission of the Malaysian authorities, Sue began to raise funds to build the Orang utans a new, bigger and better outdoor nursery cage. The fund raising was done under the name of the Sepilok Orphan Orang utan Nursery Appeal or S.O.O.N.A. – which was considered apt as the cage needed to be built sooner rather than later!

At this point Sue contacted Chester Zoo. My colleague Geoff Harper had met Sue early on in her crusade, when she asked for advice on the project. This time however, with the Zoo's assistance, we were able to offer our services to go with her, back to Sepilok, to help construct the cage. We sought the advice of our maintenance team for construction tips and our 'overseas construction team' gained a third member in the form of Richard Read (known to all as Dixie), the Zoo's resident blacksmith and welder extraordinaire!

After a 17 hour flight we arrived at Kota Kinabalu, capital of Sabah, and met up with Sue and her fellow volunteers from England, Belinda, Jane and Richie. After an overnight stop, the seven of us flew on from KK to Sandakan, and we arrived at

Sepilok just in time for the Orang utans' afternoon feed. We announced our arrival and set off down the wooden elevated walkways used by visitors that lead into the forest towards the feeding platforms. Edging our way past a troop of Pig-tailed Macaques sunbathing on the walkway, a sense of familiarity surprised me. The smell, the heat and humidity was almost the same as walking through the *Tropical Realm* on a hot summer day at Chester! As we arrived at the feeding station the Orang utans had almost finished their supplementary feed. I watched an adult female with an infant who had settled a short distance away from the platform. The head ranger, Sylvia, had accompanied us to watch the feed and I asked her if the female had a name. 'Clementine' she replied, 'She was rehabilitated here and had the baby about two months ago. She only visits occasionally'. I couldn't have wished for a better first encounter with an Orang utan in the wild; a wonderful introduction to the work being done at Sepilok.



▲ The Builders - from left, Dixie, Geoff and Chris.



▲ Before . . .



▲ . . . and after.

The following days saw our nursery cage slowly taking shape, in spite of numerous difficulties, which included the weather (incredible heat and humidity most days and torrential rain on others), the wrong materials arriving initially and the lack of appropriate tools. A less frustrating obstacle to overcome was when work was halted by two young Orang utans making a site visit! *Sabolin* and *Lemon Tree*, who had watched from a distance one morning, came to inspect the half-completed cage and then tried to examine some of the tools. Geoff and Belinda quickly walked them off site before they could cause too much trouble.

When the cage was finally completed it was painted with red oxide to protect it from the humidity and give it a longer life. Ropes and tyres were put in as furnishings, and it was finally able to hold young Orang utans. We were given the honour of carrying the first Orang utans across to the nursery cage and taking them inside to explore. Soon there were five young Orang utans playing merrily within. It was a great moment, the Orang utans were happy, the Sepilok staff were happy and we felt a great sense of achievement having overcome the many problems we had encountered.

The next few days allowed us to explore surrounding areas and see more of Sabah's wildlife. Hopefully the story of Sue Sheward, the Orang utans of Sabah and Chester Zoo will not end here. Sue's next mission is to raise enough money to fund two further Orang utan projects!

The first project is to replace the indoor quarantine cages, for newly arrived

infants, again making them bigger and better than before. This will provide the infants with a greater chance of being rehabilitated back to the forest in a shorter time. This project would help a great many Orang utans over the future.

The second project is to relocate a magnificent 26 year old male Orang utan named *King Ghaz* into another reserve. *King* was once successfully rehabilitated into the Sepilok forest and was not seen for many years. However when he returned to the edge of the reserve where the centre is situated, he wanted everybody to know that he was the dominant male and began claiming his territory. *King* is a very large and formidable Orang utan, so when he began to display to staff and public visiting the centre, it was felt that he posed too much of a threat to allow him to stay. An attempt to take him further into the reserve failed, as he knows the area and quickly made his way back to the centre. For everyone's safety, *King* has now been caged until the funds are available to relocate him in another reserve in Sabah, away from people. The benefits are that not only will *King* regain his freedom, but he will hopefully breed in the new reserve, bringing a new genetic bloodline to the area. All the reserves are essentially islands, so it may bring a new lease of life to a small population of wild Orang utans.

If you feel you could contribute or become a supporter of Sue's work, please contact her at the following address:-

Sepilok Orang utan Appeal, Charbury, Orestan Lane, Effingham, Surrey KT24 5SN. e-mail: [suesheward@aol.com](mailto:suesheward@aol.com)



If you wish to know more about these projects please feel free to contact me by writing to the Zoo's address or e-mailing me at [c.yarwood@chesterzoo.co.uk](mailto:c.yarwood@chesterzoo.co.uk)

My thanks to all the people that allowed this project to succeed. The Zoo for funding us; Dr Sen and his staff at Sepilok; the rest of the primate section for support and cover during our absence; Ray Morrison for his advice and Geoff, Dixie, Sue, Belinda, Richie and Jane for the laughter, tears and everything else in between!

■ **On their return to the UK, Sue Sheward wrote a letter of appreciation to the Zoo, saying – We would like to commend Dixie for the quality of his work, Geoff for his stalwart efforts while working in difficult conditions and Chris, not only for his physical effort, but particularly for his level-headed positive approach and enthusiastic commitment to what we were trying to achieve for the Orang utans.**

## GROWING CONCERNS

**W**E were due a cold winter and we finally got one. We had a series of frosts and below zero temperatures in February and March. This took its toll on the more tender species of plants including Hebe, Cordyline, and other plants that come from parts of the world that don't normally experience such extremes of weather.

We worked extremely hard to complete all of the internal landscaping and planting in *Spirit of the Jaguar* in time for Easter. We are sure you will enjoy the tropical jungle we have created, with free flying butterflies and leaf cutter ants. We are looking forward to a nice hot summer so that we can catch up with all the horticultural jobs

**Mark Sparrow, Curator of Botany and Horticulture and his Deputy, Sarah Bird, report on what has been happening in the Zoo Gardens!**

that need doing within the Zoo. Look out for the newly planted *Forest Zone*, the area leading up to the *Spirit of the Jaguar*.

We will be opening up part of the nursery greenhouses during the summer, so that you can see where we grow all the plants that suddenly appear around the Zoo as if by magic.

## PLANT OF THE MONTH

### JUNE

*Digitalis purpurea* Foxglove (location - in the border opposite the penguins).

**Look out for:** Tall spires of purple or white flowers, each shaped like the tip of a finger from a glove. These familiar wildflowers are suited to woodland gardens, and make good border plants. Being native to Britain they are often used in nature gardens to encourage wildlife. (centre of the herbaceous border, right).



▲ *Fremontodendron californicum*.



▲ Giant Rhubarb in the foreground to the left of herbaceous border.

### JULY

*Fremontodendron californicum* Flannel Bush, California Beauty (various locations - at the end of the parrot house, and in the beer garden).

**Look out for:** Evergreen shrubs with large yellow flowers in summer, the flowers often all open together giving a magnificent show. This plant needs a protected situation to do well in the north of England, as it comes from California.

### AUGUST

*Gunnera manicata* Giant Rhubarb (border opposite the penguins and in the Noah's statue sunken garden).

**Look out for:** a scary looking plant with giant leaves like rhubarb, and prickly stems. It comes from the jungles of Brazil and Colombia and can grow to 4m tall. The leaves die right down in winter and the root clumps need protection from frost in this country. Spiky flowers grow between the leaf stalks close to the ground. (Foreground of the herbaceous border, above).

CONSERVATION  
CORNER

When it comes to conservation every little helps. That's why we have had a good look at the way we do things in the nursery at Chester

Zoo to see what steps we can take to minimise our impact on the environment.

Compost is a big issue; in the past we used a lot of peat-based compost. We are now looking at reducing the use of peat, with trials of peat-free compost. We will keep you informed of the results. We have also set up a big compost heap to recycle green waste like plant material and grass cuttings. (pictured right). The home-made compost is a good soil improver when planting in the zoo grounds.

Using chemicals for pest control is another area where we have made changes. As far as possible we are avoiding chemicals and using insect predators that eat pests like whitefly and mealy bugs.

Another easy step to take was finding a recycling company to take away used plastic pots. It only took a few phone calls to get this sorted. In the future we plan to look at the possibilities for collecting and storing rainwater to use in the greenhouses. This would benefit the plants as well as being environmentally friendly.

So, as you can see, we are trying to do our bit. Are you doing yours?

ROYAL  
HORTICULTURAL  
SHOW

**BECAUSE** of commitments in the Zoo, we will not have a show garden at the RHS Flower Show at Tatton this year. But the new refurbished Ark trailer will be there, to publicise the Zoo. If you are visiting the show between 19 - 22 July, please come and say hello to the Zoo team!



PHOTOGRAPHIC COMPETITION

**DON'T** forget there is a Gardens section in the Photographic Competition – see page 9 for details. This section never attracts nearly as many entries as the animal sections – so your chances of winning are much greater!

This lovely summer picture of the Fountain Gardens was a winner last year for Gillian Storey. The only rule is that the entries must have been taken this year.





**Zoo Life**

# JUNIOR MEMBERS



## Meetings and Field Trips

### 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 9.30am, returning at 5.00pm. 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 10.30am and the day will finish for Juniors at 4.00pm. Please note that bookings will not be taken before Wednesday 11th July 2001 from 8.30am.

### 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

**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**

which starts at 7.00pm when you should arrive at the Staff Entrance and walk over to the Ark Restaurant. Parents are requested to collect Juniors from there at 9.45pm.

### Saturday 22 September 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 10.30am, returning to the Zoo at 4.30pm. You will need a picnic.

### 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 10.30am and return at 4.00pm. 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 9.30am and will return at 5.00pm. Suitable for over eights. Remember to bring a picnic with you.

**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.**



# Puzzle Time?

## Spot the Difference!

Different cats have different patterns for camouflage. Which pattern belongs to which cat?



A



B



C



D



E

Cheetah; Jaguar; Leopard; Margay; Ocelot

You only need to look at the front cover of this magazine to confirm which of these patterns belongs to the Jaguar! But can you get the other four right? There's a £10 gift voucher for the first correct answer out of the bag on the closing date, 2nd July 2001. Answers on a post card to Junior Puzzle, Chester Zoo, Upton-by-Chester, Chester CH2 1LH.

### LUCKY WINNER

The winner of the Spring issue puzzle is Amy Griffiths of Liverpool. The answer to the word square puzzle is Piranha.

AS usual, the 'touch session' meeting in February was very well attended, by both Juniors and friendly animals! Our photographs show some of each species getting to know one another.



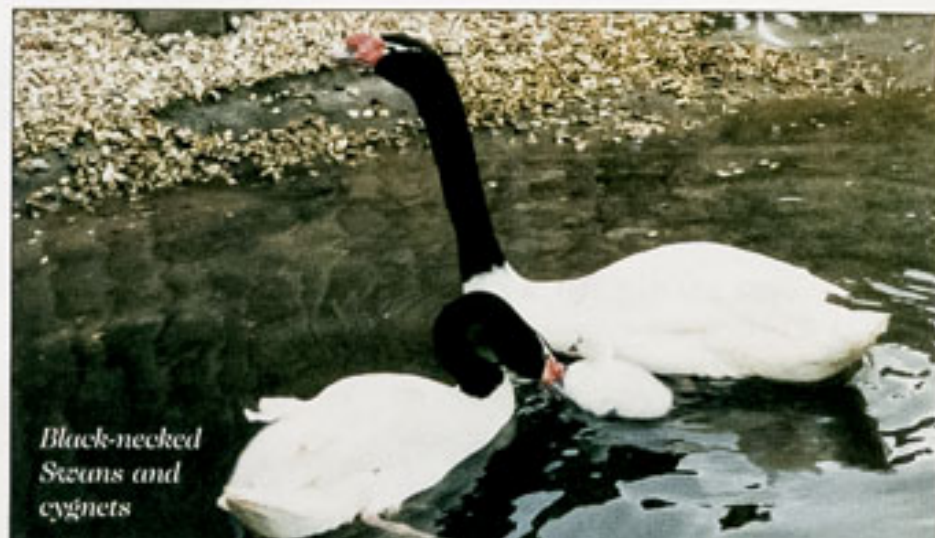
### Close Acquaintance



# Arrivals, Births and Hatchings

February, March and April 2001

Penguin chicks.



Black-necked Swans and cygnets

Photos by Peter Crane

## MAMMALS

* Rodrigues Fruit Bat	<i>Pteropus rodricensis</i>	0.0.2	Birth
* Ring-tailed Lemur	<i>Lemur catta</i>	0.5.1	Birth
* Buffy-headed Capuchin	<i>Cebus apella xanthosternos</i>	0.0.1	Birth
* Lion-tailed Macaque	<i>Macaca silenus</i>	0.0.2	Birth
* Sulawesi Crested Macaque	<i>Macaca nigra</i>	0.1.1	Birth
* Mara	<i>Dolichotis patagonum</i>	0.0.1	Birth
* Jaguar	<i>Panthera onca</i>	1.1.0	Arrival
* Californian Sealion	<i>Zalophus californianus</i>	1.0.0	Arrival
Grant's Zebra	<i>Equus boehmi</i>	0.0.1	Birth
* Scimitar-horned Oryx	<i>Oryx dammah</i>	3.3.0	Birth
* Gemsbok	<i>Oryx gazella gazella</i>	0.1.1	Birth
* Blackbuck	<i>Antilope cervicapra</i>	0.1.1	Birth

## BIRDS

* Humboldt's Penguin	<i>Spheniscus humboldti</i>	0.0.16	Hatch
* Waldrapp Ibis	<i>Geronticus eremita</i>	0.0.2	Hatch
* Mauritius Kestrel	<i>Falco punctatus</i>	1.0.0	Arrival
* Vietnamese Pheasant	<i>Lophura hatinhensis</i>	1.0.0	Arrival
* Corncrake	<i>Crex crex</i>	5.8.2	Arrival
Speckled Pigeon	<i>Columba guinea</i>	0.0.4	Arrival
Rock Dove	<i>Columba livia</i>	0.0.1	Arrival
Stella's Lorikeet	<i>Charmosyna papou</i>	1.1.0	Arrival
* Hyacinthine Macaw	<i>Anodorhynchus hyacinthinus</i>	1.1.0	Arrival
Schalow's Turaco	<i>Tauraco schalowi</i>	0.1.0	Arrival
Zebra Finch	<i>Poephila guttata</i>	1.0.0	
African Pied Starling	<i>Spreo bicolor</i>	0.0.5	Hatch
* Bali Starling	<i>Leucopsar rothschildi</i>	0.0.2	Hatch

## FISH

Emperor/Banggai Cardinal Fish	<i>Pterapogon kauderni</i>	0.0.125	Bred
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## INVERTEBRATES

Goliath Bird Eating Spider	<i>Theraphosa blondii</i>	0.1.0	Arrival
Giant Centipede	<i>Scolopendra gigantea</i>	0.1.0	Arrival
Leaf-cutter Ants	<i>Aeromyrmex octospinosus</i>	0.0.200	Arrival

Key: Col. 1=Male. Col. 2=Female. Col. 3=Young or unknown. \*Rare/Endangered.

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