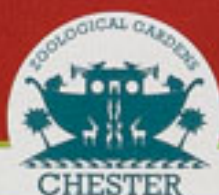


Chester
Zoo
Life

Chez Nous



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 Director: Dr Gordon McGregor Reid
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THINKING BIG

WITH the happy development of baby *Karba* this has, for me, been very much the 'year of the Asian elephant.' It culminated on 27 September with the 9th UK Elephant Workshop to be successfully organised by Chester Zoo, which I had the privilege of chairing (as I have on two previous occasions.) The Workshop featured contributions from nine distinguished elephant experts from cities as far ranging as Antwerp, Manchester, Washington, Maidstone, London and Coimbatore; and with widely varying backgrounds – keepers, research students, conservation biologists, veterinary surgeons and pathologists, even an osteopath!

The guest of honour was Dr V. Krishnamurty, a world famous Asian elephant vet who, while officially retired, still works out of Coimbatore in Southern India and is the author of more than 100 research papers. He is a driving force behind *Project Elephant*, a conservation initiative developed by the Indian Government and he is an active member of the Asian Elephant Specialist Group of the Species Survival Commission (World Conservation Union). In recognition of his outstanding contributions to our understanding of the biology and conservation of Asian elephants, Dr Krishnamurty was recently given an honorific citation by the Indian Government. We were indeed proud to host a visit from Dr Krishnamurty and also applaud his immense achievements.

Asian elephants formerly roved in their millions in thirteen or more countries from Syria to China. To-day, there may only be 45 thousand or so wild and domesticated Asian elephants – no one knows the exact figure for sure. In some countries such as Vietnam there may be less than 400. Their cousins, the African elephants still exist in comparatively large numbers, perhaps 700,000. However, in terms of conservation awareness and fundraising, there is far less charitable

impetus for the Asians. India, which has the largest population of Asian elephants, has given thought to the conservation of this species since 1976 when the Asian Elephant Specialist Group of the World Conservation Union (IUCN) was formed. In 1978 the IUCN formally recognised it as a threatened species.

Elephants are generally revered throughout Asia and, therefore, there is some hope for their future. Nevertheless, the dwindling global population of these animals (which is increasingly concentrated into small, isolated pockets) is a cause for concern. The loss of natural habitat and conflict with rural human communities is as big a problem as is poaching for ivory. Indeed, there is a far lower proportion of 'tuskers' among Asian versus African elephants with the tusk-deficient bulls or *makbnas* standing a better chance of survival. The Indian Government has prudently developed its own 'Project Elephant' whose objectives include ensuring long-term survival of identified large populations and improving people-elephant relations. Commercial capture for domestic stocks has essentially been banned for some years (but is being revived in some areas as an alternative to culling). Clearly, there is a critical requirement to match the needs of people and elephants, e.g. people who plant crops on migration routes. Firewood constitutes a high proportion of domestic energy needs in India and people enter forested elephant habitats to gather this fuel. The resulting conflicts means that some areas are becoming graveyards for trees, elephants and people.

Certainly, living and working in the vicinity of elephants can be dangerous and bull elephants in sexual *musth* (an urdu word for intoxication) represent a particular hazard. This year 25 people were killed in Vietnam and a staggering 400 in India. Even in the west, casualties have been recorded among zookeepers: two this year in North America, highlighting the need for alertness and attention to health and safety provisions. In India there are schemes in place to compensate, in some way, the surviving dependents. But the sums of money involved are not large and may not even allow the family to pay off the funeral debts. Government teams are employed to keep elephants out of village plantations but the continuing conflict means that in some areas of India 70% of herds are bullet wounded.

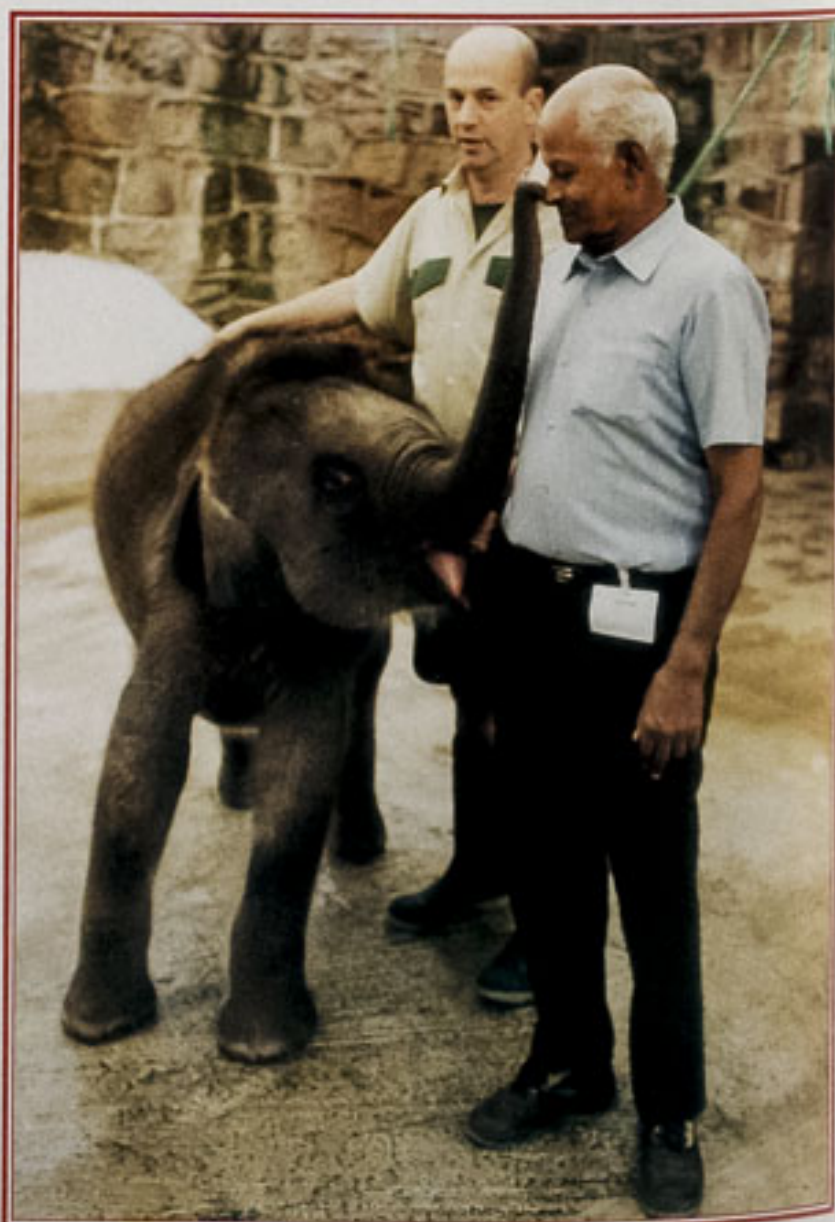
Sadly, calf abandonment is now common from the stresses of human encroachment. Mark Shand – writer, television broadcaster and Council Member of Fauna & Flora International –

rescued one such calf *Tara* and he relocated her to a safe haven in central India. Since then, elephant conservation has become a crusade for Mark and he has been instrumental in organising an Asian Elephant Appeal to raise funds for conservation. This Appeal, featuring Goldie Hawn, will be launched on television over the Christmas period (keep your eyes on the TV and in newspapers for details!) both here and in North America with an anticipated audience of many millions.

In the end, and despite such worthy charitable endeavours, it will not be possible to save all Asian elephants. The best hope is to concentrate on viable populations. Zoos can play their part by developing skills in elephant breeding – so that the zoo population remains vigorous and becomes self-sustaining, and in order to gain scientific knowledge of potential value to conservation programmes in the field. With the birth of *Karba*, the second success at Chester Zoo, we are proud to have made a very significant contribution to the British component of cooperative breeding programmes for Asian elephants.

On behalf of all the staff at the Zoo, I wish you all a very Happy Christmas, and hope that 1997 brings us all prosperity!

◆ Dr Krishnamurty meets *Karba* with Mick Jones.



MEMBERS MEETINGS 1996/97

All talks are held in the zoo's lecture theatre, with access from the 'park 'n ride' roundabout on the A41.

Saturday 14 December '96 2.30pm
Professor Ian Munro of Daresbury Laboratory - 'THE HONEY BEE: MYSTERY, MAGIC OR SCIENCE'

MEMBERS' CHRISTMAS LUNCH IS ALSO ON 14 DECEMBER, 12 NOON IN OAKFIELD RESTAURANT. £12.95 Adults, £7.50 children (3 - 11 years). Please ring Maureen (01244 650203) to reserve your place. Pre-booking essential.

Saturday 11 January '97 2.30 pm
Dr Roger Wilkinson - 'ZOO BREEDING PROGRAMMES FOR ENDANGERED BIRDS'

Saturday 8 February '97 2.30 pm

Dr Tony Martin - 'THE BIOLOGY AND CONSERVATION OF WHALES'



Saturday 8 March '97 2.30 pm

Andy Chesters - 'ENDANGERED SPECIES LINKED TO HM CUSTOMS WORK'

Saturday 12 April '97 2.30 pm

Dr Gordon McGregor Reid and Zoo Staff - 'ZOO REVIEW'

Saturday 31 May '97 2.30 pm

ANNUAL GENERAL MEETING.

To offset expenses, there will be a fee of £1.00 at the door. Tea and biscuits included.

FAUNA & FLORA INTERNATIONAL - NORTH WEST GROUP SPRING PROGRAMME 1997

Friday 21 February

AN EVENING OF CARIBBEAN CONSERVATION with Mark Day

We are delighted to welcome Mark Day to Chester, following his participation in the making of the hugely successful 'Spirits of the Jaguar' screened by the BBC during the Autumn. Mark will be giving a talk called 'A drop in the ocean: Conservation in the Caribbean.' Mark is employed by Fauna & Flora International as the Programme Manager for Caribbean Projects.

Friday 21 March

AN EVENING OF BLACK RHINOS IN TANZANIA with Reggie Heyworth.

This will be a superb opportunity to hear the latest news on the plight of the Black Rhino in Tanzania, from Reggie Heyworth who will talk on 'Hope for the last of the rhinos.' Reggie has spent three years as the Project Leader of the Tanzanian Wildlife Authority's Black Rhino Conservation Project, funded by the Frankfurt Zoological Society. Now returned to the UK, Reggie is still in constant touch with the project which is based in the Serengeti National Park the Ngorongoro Crater, and Selous National Park, the only remaining areas where Black Rhinos are found in Tanzania. The population is estimated now to be only 50 to 100 animals remaining - from 20,000 in 1970.



Friday 18 April

AN EVENING OF CONSERVATION OF CHIMPANZEES IN NIGERIA with

Nick Ellerton and Steve Hogarth.

Nick and Steve both work for the North of England Zoological Society - Nick is Curator of Mammals and Steve is Senior Keeper on the Chimpanzee Section. They will be explaining their work in Nigeria in their talk 'Conservation of Chimpanzees in Gashaka Gumti.' Following the initial preliminary chimpanzee census of the Gashaka Gumti National Park by Nick Ellerton and Caroline Harcourt in 1995, in conjunction with the WWF, Steve Hogarth spent six months in Gashaka Gumti in 1996 as part of his Ph D studies. Research in this beautiful area is complicated by the large size of the park and the often difficult and mountainous terrain. Surprisingly little is known about this area and the NEZS and the WWF are working closely with the Nigerian Parks Authority to find out more about Gashaka Gumti in order to assist preservation of the area.

FFI evenings are open to everyone and are a combination of serious message and social enjoyment. Lectures are held at Chester Zoo's lecture hall, following the directions to the zoo from the A41. Doors open at 7.00pm for 7.30pm start. We offer a light buffet and wine, which is included in the ticket price of £6.00 to FFI members and £6.50 to non-members. All funds generated from these meetings go to specific FFI conservation projects. If you would like to attend any of the meetings, please telephone Penny Rudd at Chester Zoo on 01244 380280, Ext 215. Whilst not usually vital, it is helpful for catering purposes if tickets are booked in advance.

Weekend Away

Member Maria Warrington is arranging a weekend trip for members and adopters from Saturday 19 July to Monday 21 July

The programme includes visits to Marwell Zoo and Birdworld, Farnham and there will be time for a visit to Winchester. Fuller details in the Spring '97 issue of Zoo Life.

Development Manager

The zoo has appointed its first Development Manager, with the aim of raising funds from outside sources for the continued work of the Society.

The successful applicant is John Regan MA, MICFM, who was previously Head of Fundraising at Alder Hey Hospital in Liverpool - the largest children's hospital in Europe.

He has been involved in fund raising for the last 8 years. John lives in Manchester with his partner, Diane and his stepson John. His out-of-work interests include walking, reading widely and aviculture.

Members' Safari Tour to Africa



The proposed safari tour to Africa, led by Ian Ogden - a Society member and FED, with experience of travelling in East and South Africa game areas - is all set to go ahead.

By Members' choice, the destination country is Tanzania and the departure date is 7 October 1997. It is planned to visit northern Serengeti - just when the wildebeest migration is expected to return from Kenya's Masai Mara - and the spectacular Ngorongoro Crater, as well as the National Parks of Tarangire and Lake Manyara.

More details of this itinerary will soon be available for interested members. It should provide the experience of viewing at fairly close quarters a wide variety of African wildlife, both mammals and birds, and an opportunity to take in some of east Africa's splendid and varied scenery.

The tour is being organised with Diplomatic Travel of Danehill, Sussex, who are experienced in similar tours to southern Africa, in conjunction with 'Let's Go Travel' of Nairobi. Departure is planned from Manchester, returning 12 days later. For members who would like an optional extra, Diplomatic Travel are adding on a few wonderful days in South Africa to really make the tour a memorable experience.

This is so far proving a very popular tour. For further details, or to register your interest, contact Ian Ogden on 01829 752282.

ONE HUNDRED CLUB

The winners for the past three months are:

August '96	£100 Mr J. Seddon	£100 Mrs M. Brocklebank
	£50 Mrs M Doogan	£50 Dr S. Bricker
September '96	£100 Mrs M Allsopp	£50 Mrs R. Carson
	£50 Ms C. Reynolds	£50 Mrs B Jones
October '96	£100 Major R.S. Goodwin	£50 Mrs A. Buglass
	£50 Mr D. Keay	£100 Mr S. Kalischer
		£50 Mrs S. E. Jones
		£50 Mr R. W. Grice.

Membership of the One Hundred Club is still invited. Please contact Alan Sykes.

ZOO REVIEW

PINTAILS FROM THE FALKLANDS

Two new arrivals to the bird collection in October were a pair of South Georgian Pintails. This species first arrived in the UK during the Falklands conflict, when a pair were found on a Navy ship – in a bath! They were taken to the Wildfowl Trust at Slimbridge where they bred. The birds now at Chester are descendants of the original pair.

These ducks are vulnerable in their wild island habitat of South Georgia and declining. They can be seen in the zoo on the Americas' Pond, by the Mammal House.

WHITE RHINO NEWS: ONE

A rhino born in a zoological collection outside Africa, has been re-introduced into Namibia.

The White Rhino is one of 16 successfully reared calves from Serengeti-Safaripark in Hodenhagen, Germany. The park's Director, Dr Michael Boer, said: 'The five year old bull, called *Kai* will serve as a pilot animal for all the others that will follow him. We want to find out if captive born White Rhinos adapt to the African environment.

'For the first part of the programme, *Kai* will be kept in a *boma* - a suitably adapted enclosure, while he gets to know the vegetation and climate of Northern Namibia. Before being released into the Etosha National Park, he will be fitted with a radio transmitter system to allow us to monitor his movements from the air or by car.' The ecosystem of the Etosha area is one of the biggest National parks in the world, covering an area of 22,270 square kilometres. The white rhino has been extinct in the area for the whole of this century.

WHITE RHINO NEWS: TWO

One of the field projects supported by Chester Zoo is the northern White Rhino conservation work in Zaire's Garamba National Park. So it was

very good to hear of the unexpected birth of a calf in the summer - bringing the total of these animals in the wild to 30.

Kes Hillman Smith, one of the Garamba field staff, spotted the newborn calf from the air during a survey of the park in June. The mother is six year old *Minzoto* - the youngest female known to have given birth in the park. Staff there did not know that she was pregnant.

'We saw her standing in the long grass about 100 metres away from the rest of the group,' said Kes Hillman Smith. 'I was puzzled as to why she did not join them. When she moved out into a clearing, we suddenly saw the tiniest calf standing at her feet.

'She appeared to be very careful with her baby, moving slowly as it lopped through the grass behind her, totally disappearing from view except when we were directly overhead.' The Autumn issue of WWF News reports that the birth has come as a welcome morale boost for park staff, which was very low, following the death of one of Garamba's guards after a shoot-out with poachers.

The guards have named the calf *Mbolifue*, a local word meaning 'a gift from heaven.'



BABY TAPIR SHOWS HIS STRIPES

This tapir calf was born in the zoo at the end of September. The youngster is a male, and keepers are still deciding on a name for him. Mum is four year old *Jennifer*, who was born in Port Lympne Zoo, and Father is *Cuscu*, who was born in Chester 1991.

New-born tapirs are one of the most attractive zoo babies. They have reddish brown coats, dappled with white spots and stripes – making them almost invisible to predators in the jungle undergrowth of their native South America. As they grow big enough to go searching for their own food, the need for camouflage decreases – and the pattern begins to fade. By six to eight months, the attractive markings have gone altogether.

WELCOME BACK, PARKY!

And while on the subject of rhinos - our adult Black Rhino *Parky* returned to the zoo in September, after two years at Port Lympne Zoo. During his stay *Parky* mated with at least two females, so hopefully there will be some little *Parkys* in Kent in the near future!



▲ *Parky* now re-united with *Esther*

TOP AWARD FOR THE ZOO GARDENS

The hard work and creativity of the gardening team was rewarded when the zoo retained the silver salver award for the best large tourist attraction in the North West in Bloom competition this year.

The award was collected by Gardener Mark Hargreaves at the Southport Flower Show in August.

MOVING ORANG UTANS

▼ *Orang utan Oscar.*

Two of our female orangs left the collection in October. The recent baby boom in this species meant that the accommodation was becoming a little overcrowded! *Kibriab*, who originally came to Chester from Twycross Zoo on breeding loan, return there with her infant, *Maliku*.

Also leaving Chester shortly, to go to another collection, are adults *Ramona* and *Oscar*. A male Sumatran orang utan from Australia will be arriving to provide some new blood to the group. These moves demonstrate just how successful Chester Zoo has been in breeding this endangered primate.



LINKS WITH WIGAN PIER

The zoo is working with Wigan Pier on a series of joint promotions, including concessionary entrance to both attractions, on production of the ticket receipt from the other venue.

Wigan Pier's Manager, Angela Malpass, a lifelong elephant lover, was delighted at the opportunity this gave her to meet *Karba*. Wigan Pier have become elephant adopters at the zoo, and Angela collected the adoption certificate from Neil Spooner – helped by *Karba*.

KARHA'S NURSERY

The former hippo area, at the end of the elephant breeding centre, has been converted into a 'nursery' and pool for *Karba*.

The conversion of this area has been made possible through a generous legacy from the estates of two ladies who were both great animal lovers, and also both elephant adopters at Chester Zoo.

Miss Margaret Thomas and Miss Minnie Anderson, both from Mid Glamorgan, were life-long friends. Sadly, they died within a few months of each other. They both left provision in their wills for a donation to Chester Zoo.

In September, Mrs Mari Chantry, (pictured here with *Karba*) sister of Margaret Thomas, and Mr Fred Anderson, Minnie Anderson's nephew, formally opened the new accommodation – with assistance from *Karba* herself!



SAND LIZARD HATCHING

Following the opening of the zoo's vivarium for sand lizards in the Spring, (*Zoo Life Autumn 96*), staff were delighted to find the first hatchlings this Autumn.

Six young were hatched in late September, and were taken into the Tropical Realm for warmth and care. Said Herpetologist Keith Brown,



'They would certainly not have survived if they had hatched in their natural habitat so late in the year.'

'Parental care is non-existent in this species, and they need warm sunshine to survive.'

This early success in the zoo's vivarium is a ray of sunshine for Britain's rarest lizard.

LEARN FRENCH IN THE ZOO

Zoo education isn't just about zoology! The latest publication from Chester Zoo's Education Division – *Faisons du Français au Zoo* – is an innovative resource pack for teachers of French, at Keystages 3 and 4 and post 16. Its aim is to bring together the fascinating worlds of wild animals, wild habitats and conservation with the world of contemporary spoken and written French.

The pack was created by Mrs Jean Atkin, an experienced teacher of French. Each chapter contains several modules,

complete with teacher and student information sheets, student worksheets, task suggestions and vocabulary sheet. An audio tape complements the written text and provides aural work.

Word games, puzzles, additional task ideas and poems are in two appendices.

The price is £30.00 for the complete pack (plus £5.00 p&p). There is also a basic starter kit available at £10.00 (plus £2.50 p&p). Details and order forms from the Education Division (ext. 250).

*Comment !!!
Pourquoi ???*



A TOUCHING EXPERIENCE

Building on the success of the three existing carts, based in the Tropical Realm and the Aquarium, the Education Division have launched a new 'touch experience' cart.

This new visitor service is based either by the elephants, rhinoceroses or by the ostriches.

It is staffed by volunteers. Already it has proved to be very popular with both our visitors and with the FEDs themselves.

Both children and adults are attracted to the cart by the material on display.

This includes an ostrich egg, ostrich feathers, an elephant's tusk (on loan from Customs and Excise), a piece of *Sheba's* tooth and hair from the tail of one of the other elephants in our breeding herd.

While handling the material, our visitors find out more fascinating details from the FED on duty.

They can find out about the natural history of the species, the particular animals at the zoo and the part Chester is playing in international conservation breeding programmes.

Time spent by visitors at the cart can vary from as little as one minute – with young children who just want the experience of holding an ostrich's egg or feeling how wiry a piece of elephant's hair is – to 20 minutes.

The cart was purpose built by two volunteers, Peter Duxbury and Geoff Taylor. The attractive cartoons were drawn by another of our volunteers, Bill Fletcher. They are a talented lot, our FEDs, and they make a valuable contribution to the work of the zoo.

A 'SOUND' IDEA!

Feeding times are the highlights of a zoo visit for many visitors. Feeding time at the penguin pool is now even more of an occasion!

The enclosure has been fitted with eight speakers, and Avicultural Deputy Mark Pilgrim, (or another member of the bird staff), uses feeding time to talk to the visitors about the Humboldt's penguins.

The system was installed by Fisher Audio Visual of Chester and Birkenhead. Roger Wilkinson, Curator of Birds, says: 'The system has enabled us to explain to visitors why we help penguins, why we do what we do in breeding them and exporting them to other zoos around the world. Our next step is to develop two-way communication with the visitors.'

JAKE'S JAUNT

You may have noticed that our male Asiatic lion, *Jake*, has been missing from his family in recent weeks.

Jake has gone for a short term breeding visit back to London Zoo, in the hope that he will play his part in the conservation of this critically endangered species.

He will soon return to *Chandani* and the three cubs who were born here earlier this year.



▲ Chester Zoo's Director, Dr Gordon McGregor Reid, attended the 51st annual conference of the IUDZG – the World Zoo Organisation in August. This year the conference was held at Denver Zoo in Colorado, USA and brings together leaders in the zoo community from all parts of the world. Gordon Reid is far left in the second row up.

CONDOR CLIFFS

Work is now nearing completion on the new aviary for birds of prey, on the site of the old bear pit.

This site has been off-view for several years – but the recent building work

there has provided an extra visitor attraction, particularly for small boys!

The new aviary has been made possible by a generous legacy from the estate of the late Sally, Duchess of Westminster. Curator of Birds, Dr Roger

Wilkinson, will write more fully about his plans for the aviary in the next issue.

▼ On the cliff-face. Building the nesting areas for birds of prey is one of the last jobs on this exciting new enclosure due to open soon.



ETOSHA

**Zoo Member
DAVID BARNABY,
writes about his
memorable trip
to Namibia**

It was a book from the Chester Zoo shop that sparked off the journey this time. *Etosha* by Daryl and Sharna Balfour was propped up on my mantelpiece. My son, Ross, picked it up. 'I'd really like to go to Etosha. Do you fancy going sometime?', I said casually and half in joke.

'Yes', he said.

He set about the organisation and within three months we were there.

There was, of course, a background and a reason why I had bought a book called *Etosha*.

For a few years I had been looking very closely at zebras and especially at the known history of the extinct quagga. Although the Quagga was an animal of the most southerly part of Africa and I had been to Cape Town to look at the quagga project, the zebras of the Etosha Reserve in what is now Namibia kept cropping up in my research. These zebras have a general tendency to brownness, as well as sparse striping on the legs, and I was keen to have a look at them. Apart from that, who would resist the opportunity to spend some time among one of the richest gatherings of wild animals left in the world?

There were three of us. We had all been in Africa before, but on our first day out of Windhoek the excitement of the first hornbill by the roadside was more than enough for us to stop the car and watch for a while. Soon, in Namibia, one expects much more, and usually one gets it. By the time we reached the Waterberg Plateau, where there is a national reserve and a rest camp called Bernabé La Bat (how could we, with our name, resist a place like that?) we had made numerous stops. I especially liked the Grey Lories. We made wild suggestions about what would be our first wild mammal sighting. It turned out to be a female Warthog with a youngster feeding by the roadside.

Namibia as an independent country is only six years old. The country, as a



▲ *Etosha: Springbok, Gemsbok and Plains Zebra.* Photo by David Barnaby

natural phenomenon, is largely hostile to normal human needs; it provides little surface water among its vast tracts of stony landscape, scrub desert, sand desert and mountains.

The geology is dramatic both in the large scale with formations of startling colour, size and shape; and in the small scale, where the locals of Damaraland sell the ever-varying stones picked from the ground. The Waterberg Plateau itself appeared like a huge red rock fortress rising vertically above the other hills. When we stood at the base of its 'walls' the colours of the rock faces were more like a Jackson Pollock canvas; splashed and streaked in white, red, black, yellow, green, grey and brown. Indeed, it did not seem a great step to the cave paintings and rock engravings which we were to see later at Twyfelfontein.

Walking between the trees and rocks of the Waterberg we became aware of a small pair of bright eyes watching our progress. As our own eyes became accustomed, we spotted whole groups of such eyes watching us from rocky outcrops. Rock Hyrax. From the top we looked down over the vast plain and watched lines of baboons moving. (Baboons in the vicinity of most rest camps make a thorough inspection of the visitor area, picking up any scraps of discarded food. They appear to carry out a sort of daily rubbish-clearing duty.)

At Daan Viljoen, a reserve very near to Windhoek where there is a lake very

popular for picnics, the first baboon invasion of the day takes place at first light. All the dustbins are metal in order to be jackal-proof. The baboons systematically inspect them, tipping many over. Early morning at Daan Viljoen is noisy.

We left the tarmac roads and drove towards Etosha. We would not see another bit of tarmac for another two thousand miles. We photographed each other at the Etosha entrance and drove through with a feeling of elation. Objective achieved. Our eyes scanned the bush on either side.

We were becoming more skilled at spotting animals. Who would be the first to say, 'Look there?' It was Elise.

'Look there. A giraffe'. The giraffe disappeared into the trees, as even the largest animals can do. Only Elise had seen it. Had she been mistaken? It was obvious to us all later that she had not.

Much of the animal life of Etosha is indescribably abundant and available for viewing. The outstanding, among hundreds of memorable mental pictures, include my first view of my long-awaited Etosha zebras as they emerged from the darkness to drink at the Namutoni waterhole. Another is a long and thirsty day of game watching with fresh elephant dung visible everywhere, but no elephants in sight.

We drove to another waterhole in the afternoon. There were other vehicles

with a little help, always has water in it. The scene is floodlit at night and the whole is so uncannily like a theatre set that one almost forgets that the animals are wild. There is even a block of seating for the spectators.

The actors appear from and disappear into the darkness at the back of the stage. When they disappear into the bush one can imagine them returning to their dressing rooms. We emerged one night from the Okaukuejo restaurant where the hot butter and garlic with the snails had been in perfect proportions, and made for the waterhole. A black rhinoceros was illuminated front stage, with an elephant just behind. The elephant slowly left. Another rhino appeared.

They interacted a little, almost in slow motion. A third rhino appeared accompanied by a youngster. The four rhinos stayed onstage for quite a while. Then one felt, rather than heard, a whisper go among the human spectators when a lion hesitated a long time in the dim light at the back of the set, then walked down into full light for a drink. The rhinos left. Shortly after the lion had gone, two rhinos came back. The drama would continue, with intervals, all night. In the small interludes between the star actors, jackals would trot across the stage to maintain the interest.

In Etosha I saw almost enough plains zebras to satisfy even me; groups at close range and herds at a distance. Just one of many pictures: early morning hundreds of hoofed animals were gathered at a particular waterhole and coming from all

▼ *Elephants in Etosha.*

Photo by David Barnaby.



there. Something was going on. Something? There were about thirty elephants drinking, bathing and playing. Dominating the waterhole nevertheless; all the other animals present gave way to the elephants wherever they happened to turn. On another occasion, at an almost waterless hole we were alone. We drove slowly towards the dip (you are not allowed in any circumstances to get out of your car in Etosha). A hundred yards away a leopard saw us. It disappeared into the scrub followed, inexplicably to us, by a group of guinea fowl. The Etosha salt pan itself was a glaring and whitish expanse of human-hostile flatness. One wondered how any animals could derive benefit from it.

The landscape itself, experienced without the convenience of a vehicle and a cool box, could be very hostile indeed. The facilities for visitors in the main rest camps are quite the opposite. After a day in scorching heat and dust one can eat in a restaurant where the main concerns may be the temperature of the wine or which dessert to choose. Many times we did this. Other times we camped. One night I left a boot outside my tent. I found it chewed by a jackal, although still wearable, next morning.

Among the impala, springbok, wildebeest, zebras, warthogs, hartebeests, elephants, giraffes, kudu, squirrels, mongooses, gemsbok, jackals and lions, to name only some of the mammals that we saw, sometimes in utterly dramatic and moving contexts, I had not seen a rhino. I had to wait for the theatre of Okaukuejo - the most famous of the three Etosha rest camps. Its waterhole,

directions. A long line of zebras walked steadily from the horizon towards the gathering, taking many minutes. Half a mile from the water the leading ones started to gallop. The rest of the herd also broke into a gallop as they, in turn, reached the same point.

There were animals I saw which I have not mentioned in this condensed version of my Namibian journey, and others which I did not see at all. We were not able to travel to the extreme western end of the park, where mountain zebras can be seen alongside the plains zebras.

I had to wait for a private reserve in Damaraland before I saw mountain zebras. At the first sighting there was a herd of thirty-one of the Hartmann's subspecies. They were much shyer than the Etosha animals and close proximity was impossible, because in such places shooting goes on as well as watching.

The almost unbearable stench of the innumerable fur seals at Cape Cross, the pink swathes of flamingos at Walvis Bay, the klippies of the Naukluft Mountains, the gemsbok in the sharp-ridged dunes of soft and stoneless sand at Sossusvlei, and the lone eland who watched us from a height as we walked along a dry river bed on the morning of our return. These are other experiences and other stories.

The last wild animals we saw in Namibia were a group of helmeted guinea fowl by the roadside, only a mile or so from the airport.



Chester Zoo's Gordon McGregor Reid, was invited States for the IUDZG (World Organisation) conference each year. He came back with more of film, capturing highlights of one of the American zoos he visited here just a few.



1 'Tropical discovery', reef tank, Denver Zoo.

2 'Cultivate your mind', Denver Botanic Gardens.

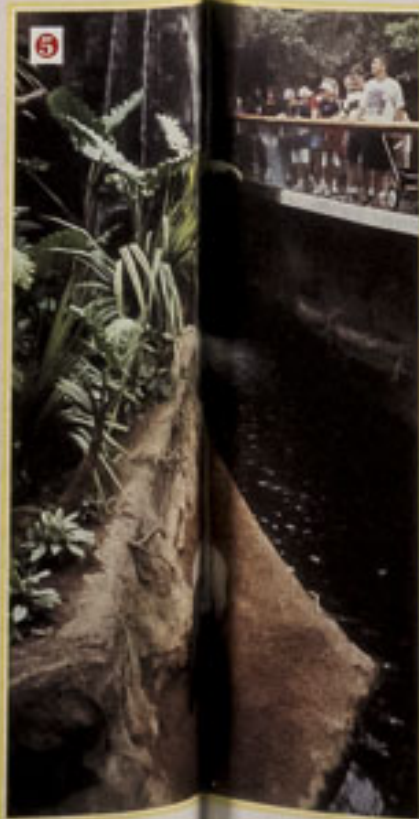
3 'Tropical world', a primate's journey, Chicago Brookfield Zoo.

AMERICAN ZOOS IN FOCUS

4 'The Lied Jungle', Henry Doorly Zoo, Omaha.

5 'Primate panorama' contact kraal, Denver Zoo.

6 'Komodo dragon', public art, Oklahoma Zoo.



Zoo Bred Barn Owls Released

Since 1988, when Roger Wilkinson wrote in *Zoo Life* about the zoo's involvement with the release of captive-bred Barn Owls, more than 100 young birds have been sent from Chester to release sites in the north-west. This year, for the first time, a member of staff has been able to provide a suitable barn for the owls. As a result, instead of waving goodbye to the youngsters, as Carole and Paul Hackney (who co-ordinate many releases in this area) removed them at the tender age of five or six weeks, the Curator of Birds is still providing food for them and, in return, receiving news of their progress.

It was sometime last year that Nick and I first thought that our old stable building and its empty loft might be a suitable place to house Barn Owls. Several months later, we contacted the Hackneys to ask them to visit the site. A farmer a few fields away was also interested in the project, so it was agreed that, if both places were suitable, we would have two owls from the zoo, and he would have two from elsewhere – in the hope that at least one

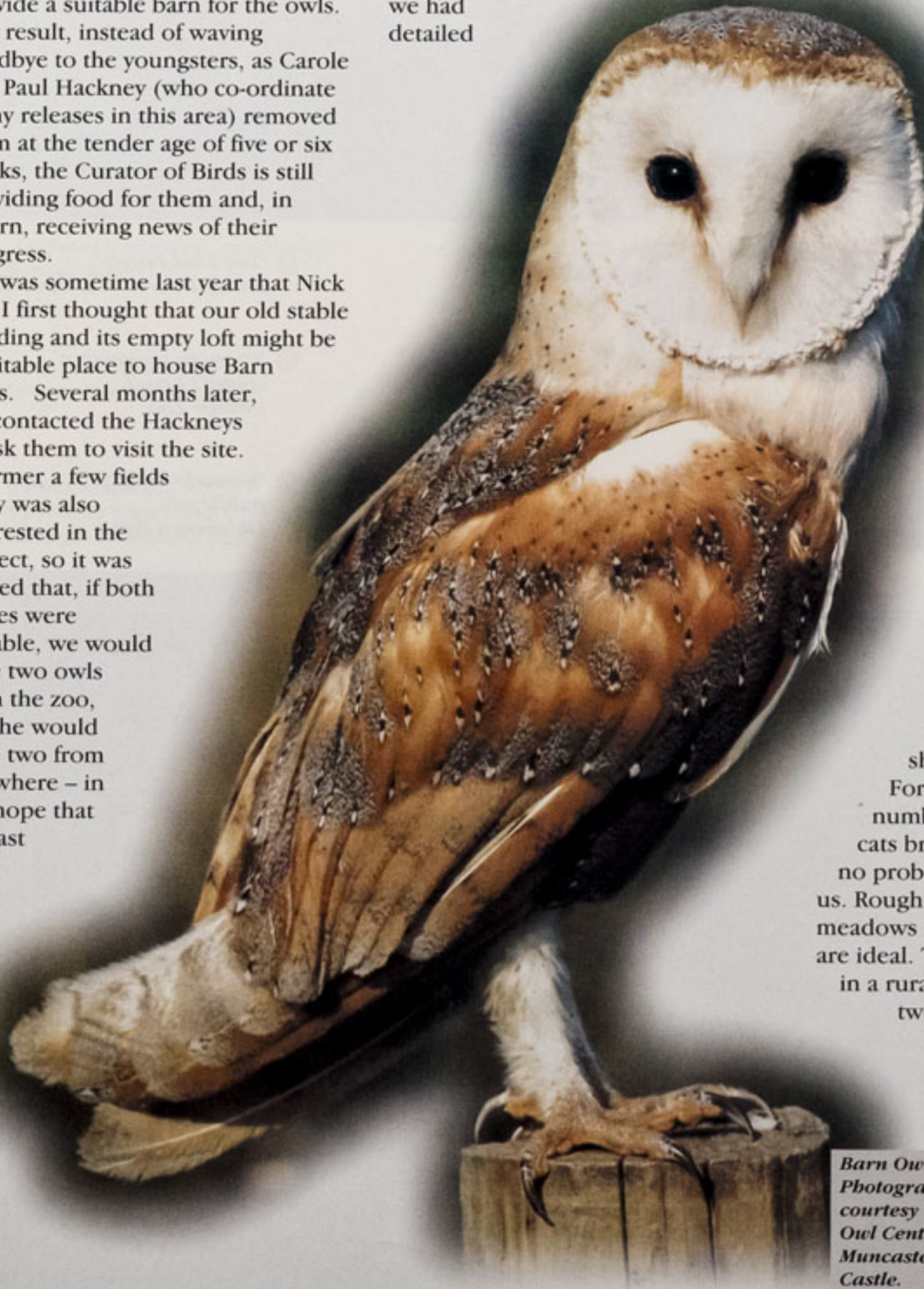
unrelated pair would remain and breed in the area.

Nothing could happen until late spring or thereabouts, as that was when more owls would be available for release. Meanwhile, we had detailed

Curator of Birds, Roger Wilkinson, has entrusted the care of some of his zoo bred Barn Owls, to Curator of Mammals, Nick Ellerton! Nick's wife, Dr Caroline Harcourt, writes about their part in the release programme.

instructions as to what would be required of us. Both we and the farmer decided we would like to go ahead – even though it would mean weeks or even months of feeding dead chicks and mice to the owls, not stopping until we were sure they were able to fend for themselves. In addition to there being someone willing and able to provide food every day, there were several other conditions required before a site would be considered suitable.

The barn the owlets are to be put into has to be quiet and little used with permanent access to the outside, preferably with two exits/entrances so if something nasty has entered by one, the owls could leave by the other. The surrounding land needs to be good habitat for voles and shrews, the owls' main prey. Fortunately, judging by the number of mice and voles my cats bring in, the owls would have no problem finding food around us. Rough grasslands or lightly grazed meadows and extensive hedgerows are ideal. The release site should be in a rural area, and be more than two kilometres from a busy road or railway. Vehicles are a major cause of Barn Owl deaths. In addition, the site should be less than 250m above sea level, as snow and the resulting inability to find food is another major factor limiting



Barn Owl. Photograph courtesy The Owl Centre, Muncaster Castle.

survival of the owls. Water containers (tanks and troughs on farms and water butts) in which owls often drown, and overhead power lines are other hazards for the birds. The site would also be unsuitable if farmers in the area use many pesticides.

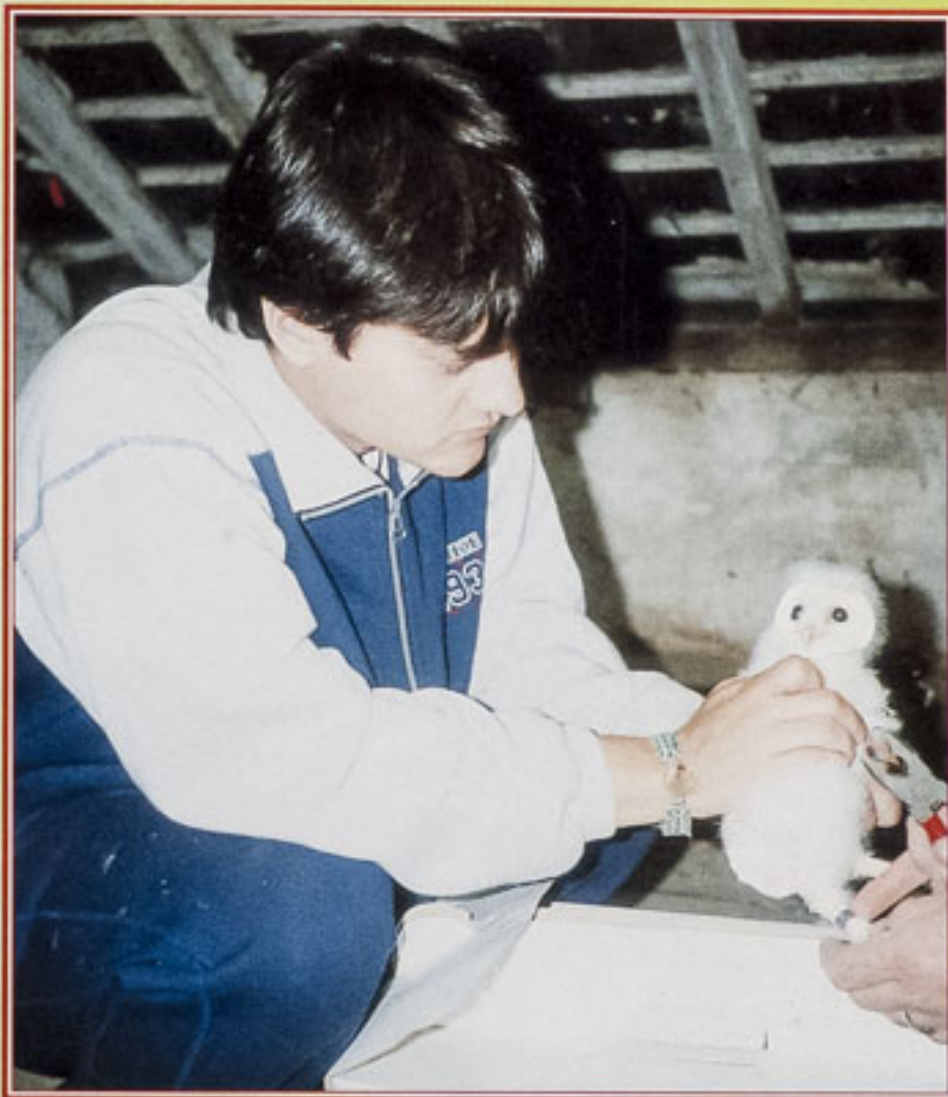
In early June this year, Carole and Paul visited and approved both sites. There were then delays while we waited for a Department of the Environment inspector to visit and more weeks until a licence was granted. By then we were into school holiday time and everybody vital seemed to be away. The project was further complicated by us living in Wales, rather than Cheshire or Staffordshire where the Hackney's owls usually went. However, on 11 September the owls finally arrived – not just the anticipated four, but five for us and three slightly older ones for the other site. 'Ours' were duly ringed with British Trust for Ornithology identification tags and shut into their new nestbox (a tea chest) until they recognised it as home. Each evening, I climbed the ladder to the loft, got hissed at viciously – they sounded more like snakes than birds – and tipped in 15 prey items, three for each bird. I left them in peace again as quickly as possible. The usual food, day-old chicks and white mice, was sometimes supplemented with a vole or shrew my cats had caught and discarded. It seemed a pity to waste them and perhaps they would help the owls to recognise their proper prey. After four days and nights, I took the wire off the front of the tea chest and gave the birds access to the whole loft.

Everything was fine for another five nights, then to my dismay, there were only four owls in the box. However, we found number five huddled in a corner of the barn, and put him back in the tea chest. There they all stayed for a further three nights; but on 25 September, one was missing again. Again we found and returned him, but this time I rang Carole for advice. She said to let them do as they wanted from now on. After that night, there was rarely an owl in the box, but four were sitting on it or near it. By the end of the month, there were only three owls in the barn, then there were two, then there was one and by 6 October there was none.

It isn't an unhappy ending though. Each night, all the food disappeared, so evidently owls were around. It didn't take us long to discover that the ungrateful creatures had decided that the ancient, delightful barn over the road was a more desirable residence than our outbuilding, and they were evidently spending the day there, and flying back to us as dark fell!

Much to our delight, they continue to visit and we are beginning to see them swoop over the house and search the adjacent field in proper Barn Owl fashion, apparently looking for prey. I collect their pellets each day now and will send them to Carole Hackney for analysis of the types of bones they contain. In that way, we will be able to tell if they are being successful in finding their own food and will be able to cut down on the artificial feeding eventually.

We intend, with permission from the owners, to put up more tea chests and other boxes in any old barns or solitary trees in the surrounding area that look as if they might provide suitable roosting or nesting sites for Barn Owls. If we are really lucky, they might stay around and nest in our barn or, just as good, in one nearby. It would certainly be wonderful to have them back in this area and, with much help from the Hackneys and the zoo, to have contributed in some way towards helping this species become re-established.



▲ ▶
The owlets are introduced to their new quarters by student Miguel Sanchez from Spain.



▼ *Faces at the window!*

Photographs by Caroline Harcourt





SHOPPING IN THE ARK

Our splendid Ark Gift Shop has been open for just a year, and has proved a great success with visitors and with members.

Animal Adopters & Friends

Present this voucher with your purchases in the Ark or Fountain gift shops in Chester Zoo for a

10%

discount on all purchases in a single transaction.

Valid until 31st January 1997.



Retail Sales Manager, Alan Jones

Alan Jones reports on the first year of trading.

As soon as the Ark opened, it was an immediate success. This modern, well fitted, well stocked shop has brought our zoo retailing into the 21st century! The extra square footage gained has allowed a much greater range of animal themed products, including books, videos, films, jewellery, pictures, ornaments and, of course, the largest range of animal cuddly toys to be found anywhere in the region. Our special range of 'Karha' merchandise has been very popular - particularly the zoo-published children's book *Karha's Story*.

Our shopfitting and display costs were all met by our major suppliers, Ravensden plc, Aura Books and Kodak - and we are very grateful to them for their generous support.

Zoo retailing has had a record year. Turnover is up by over 50%, making the retail operation the second highest net profit provider, after gate receipts. The extra revenue, of course, helps to fund the zoo's main aims of conservation, education, science and leisure.

If you haven't yet completed your Christmas shopping, do come into the Ark and have a look at the biggest and best selection of animal themed products in the north-west! They are all at good value-for-money prices, even before we knock off 10% for members! This December, we are also offering this same discount as a 'thank you' to all our adopters. Just cut out the voucher on this page, and hand it over, with your purchases, at the till.

If you really want to be remembered this Christmas - send a pot of zoo poo! The elephants are keeping up with the demand!

Can't think what to buy those difficult people on your list? Then buy a zoo gift voucher. We'll provide a handsome card, and the vouchers are accepted for entry into the zoo, and in all the shops and catering outlets. We also accept all major credit cards and Switch.

We are planning two special late-night shopping evenings in December for our members and adopters, to celebrate the first anniversary of the Ark. There will be complimentary wine and mince pies, and free zoo entry for adopters. (Members, of course, always have free entry.) The dates are Friday 6th and Monday 8th December from 6 pm - 9 pm.

We will also be selling Christmas trees from the beginning of December, on the main car park. Just drive your car to the shop's warehouse door, for easy loading.

So - why not do your Christmas shopping in comfort, no crowds, free parking, easy access, discount prices and a large selection of gifts to suit all animal lovers. You'll also have the satisfaction of knowing that you are supporting your favourite charity!



▲ **A glittering selection of animal jewellery**



▶ **Cuddly toys or zoo poo! Both make unforgettable presents!**



▶ **Assistant Retail Manager Susanne Stanton shows the extensive range of animal ornaments**



▶ **Animal books for every age group**



DECLINING DORMICE

Much of the information in this article is condensed from a longer, in depth article by Sarah Thompson in the Autumn issue of 'The Grebe'.

Most of the conservation work at the zoo is concerned with endangered species abroad. But the zoo is also involved with conservation programmes much closer to home – such as the Barn Owl scheme detailed elsewhere in this issue. Another of these is the Dormouse Species Recovery Programme. This is one of many English Nature programmes whose aim is to 'achieve long term self-sustained survival in the wild of the species of plants and animals currently under threat of extinction.'

The populations of dormice have declined to such an extent that they are now extinct in the major part of northern England. English Nature has undertaken three reintroductions. One is in Oxfordshire, one in Cambridgeshire and the third reintroduction is in Cheshire, on a site privately owned by multiple landowners. Coordination work for this has been done by the Cheshire Wildlife Trust, and Chester Zoo has been supporting the scheme from the

beginning by hosting and planning meetings. Over 120 nestboxes were made at Cheshire Wildlife Trust and in May this year they were attached to trees at the secret woodland site. On 4 June, 29 dormice were released at the site, and placed in carefully designed pre-release cages, ensuring no access to other animals. Food and water were provided and the animals were carefully monitored. Feeding was gradually decreased and by 6 - 8 weeks the dormice had become self-sufficient.

In August, when the first monthly nestbox check was made, helpers were thrilled to discover that Cheshire now has baby dormice! Sarah Thompson of the Cheshire Wildlife Trust writes: 'In two of the nestboxes we found two pregnant females and two other boxes had females with babies. Each female had five young, about one week old, still pink and with their eyes closed. We also found a juvenile who was about seven weeks old and several males who were in good breeding condition. This news suggests the dormice are settling in well and exploring and using the numerous nestboxes outside the cages and are happy to breed at the new site.'

▲ This beautiful photograph of a dormouse was taken by Dr Pat Morris of Royal Holloway College.

Dormice Facts

- Dormice are not actually a species of mouse: they are more closely related to squirrels or bats.
- They spend the majority of their lives asleep! Seven months of the year, from October to April/May is spent in hibernation. Even during the summer, they may go into a torpor if the weather turns cold or food becomes scarce.
- Dormice are tiny, weighing between 14 - 43 grammes, with a body length of 75 - 90 mm, excluding the tail.
- Babies are born after a 3 - 4 week gestation, and are normally independent at 6 - 8 weeks old.
- Lifespan is 4 - 6 years.

JUNIOR MEMBERS

HILBRE ISLAND

June '97 - date to be determined, when tide-tables are known.

A walk from West Kirby to Hilbre Island - over 10's welcome.

DAY WITH A KEEPER

Wednesday 23 July

Over 12's only for this, as it is hard work! Meet outside the Oakfield at 10.30.

Finish at 4.00pm. Picnic lunch needed.

SUMMER BARBECUE

Friday 15 August

Juniors over eight are invited to enjoy this special evening, from 7.00pm (staff entrance) until 9.45pm.

THE FOLLIES - HAWKSTONE PARK

Saturday 20 September

A strenuous walk through the nature ramble in the Shropshire hills. Leave the staff car park at 10.30 am, return at 4.30 pm. Over eight year olds.

Bookings must be made for all events. Please ring Penny on 01244 380280, extension 215, not more than two weeks before the event. A small charge will be made for events involving transport, materials or foods.

Just in case we have to change any dates or events - please read these pages in every issue of Zoo Life!

MEETINGS AND TRIPS

THE CHRISTMAS PARTY

Friday 6 December '96

All over 7's welcome to enjoy music, games and a hot-dog supper. Don't forget a cushion to sit on! The party will be in the indoor picnic area, behind the Tropical Realm. Come to the OLD (Caughall Road) entrance at 7.00 pm. Parents may collect from there, or from the party area, at 10.00 pm.

THE CONTACT SESSION

Saturday 25 January

Meet some of our friendlier residents! Over 8's welcome. Meet outside the Oakfield for 2.15 pm to walk across to the indoor picnic area to meet snakes, spiders, tortoises, rats, lizards, goats, rabbits, guinea pigs, wallabies, ducks, doves, ferrets - and maybe a few surprises! Parents may collect at 4 pm back at the Oakfield.

LIVERPOOL MUSEUM

Saturday 22 February

A chance to see behind the scenes at the

Liverpool Museum of Natural History. We will leave the staff car park at 10.30 am, returning at 4.00pm. Juniors over eight are invited to join us - and you should bring a picnic lunch.

A brief reminder of the rest of the year's programme. Full details were in the Autumn magazine:

TRACKS AND SIGNS

Saturday 22 March

An opportunity for over eights to make plaster cast footprints. Wellies and old clothes essential! Meet outside the Oakfield at 11.00 am - collection at 4.00pm.

DUDLEY ZOO

Saturday 26 April

Leave the staff car park at 9.30 am, return at 5.30 pm. Over eight's welcome - picnic lunch needed!

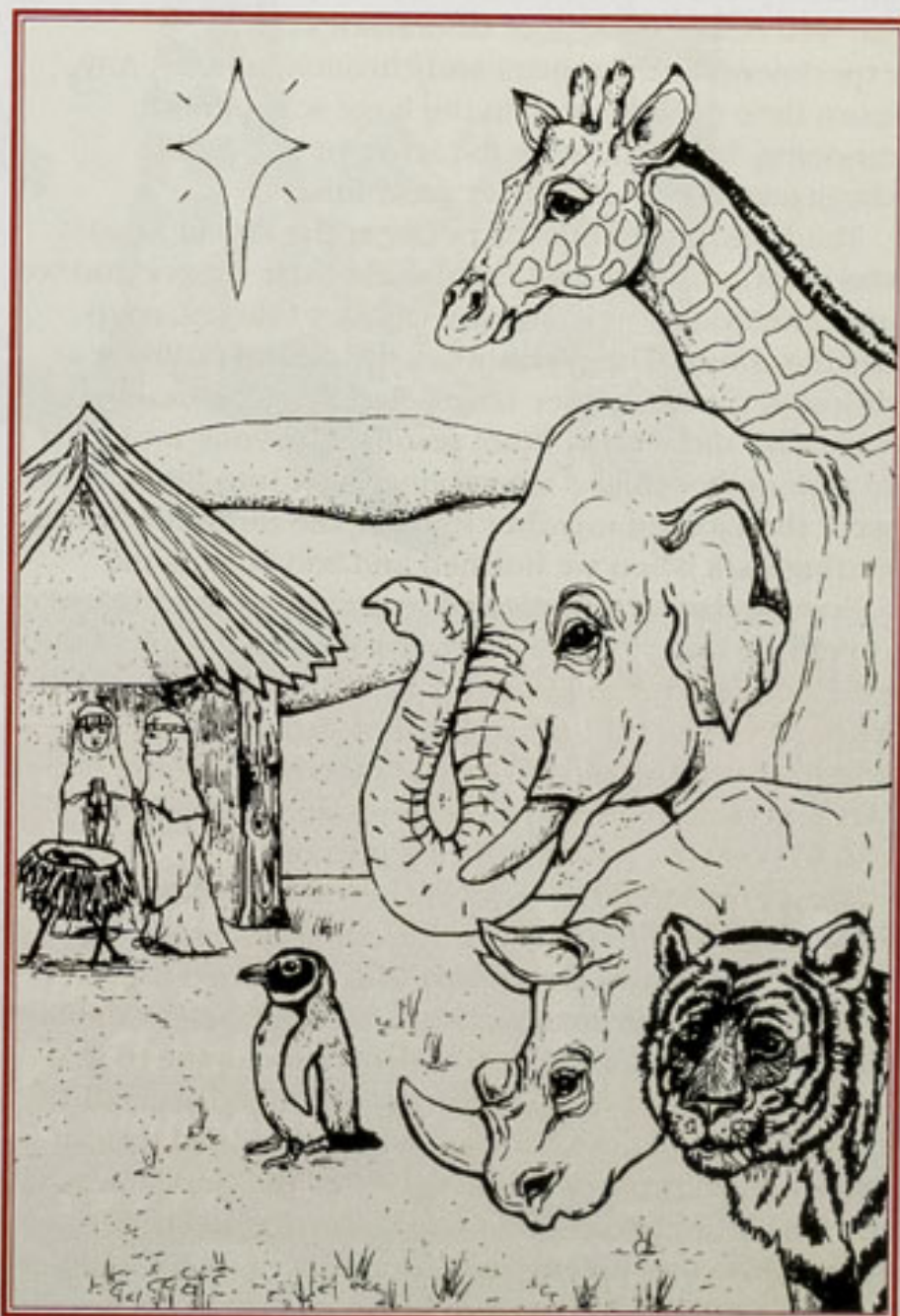
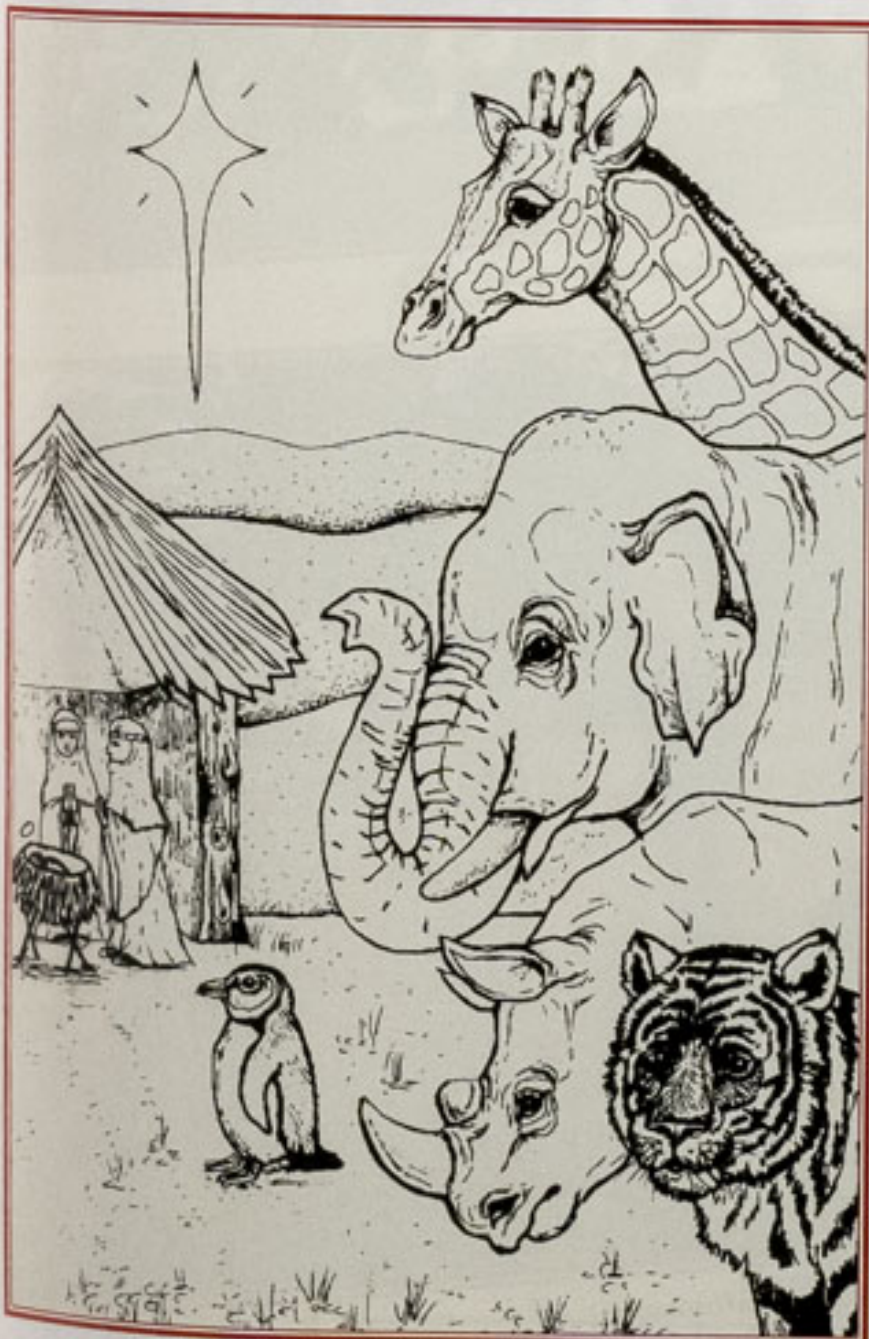
THE CHESTNUT CENTRE

Saturday 24 May

Visit the birds of prey and the giant otters. We will leave the staff car park at 9.30am and return at 5.00pm. Over eight's welcome - bring a picnic.

A Christmas Competition

Can you spot the 15 differences in these two nativity scenes? Answer on page 18.



JUNIOR NEWS

Junior Club Leader, Penny Rudd, reports on the summer activities:

It was a busy summer for the Juniors! We had a large and very keen participation from the over 12's on the 'Day Helping a Keeper' in July, when some very good and hopefully long-lasting contacts were made by juniors, hoping to follow a career in zoology in the future.

A 'guinea pig' group of juniors also took part in our first residential field trip for many years. Thirty juniors spent three days in Leicestershire, based in Rushbrooke House at Oakham School, getting involved in the biology of the area. They visited the Rutland Water Nature Reserve, where amongst other species they were able to see some of the osprey recently reared and released there. A very early morning trip to Burleigh Forest enabled Juniors to see fallow deer, red deer and muntjac. An insect display involved the collection of a wide number of specimens for identification. Dr Tim Gunn, Head of Biology at Oakham School, also took Juniors on a tree-identification ramble during which an old fashioned 'charcoal' maker was discovered in the woods who explained his art to the Juniors. A highlight of the visit was the discovery of a beautiful slow-worm under a piece of shed bark. We also spent half a day in the well equipped school laboratories doing experiments with stomata and chromatography. Any spare time (!) was spent in the large school pool, canoeing, barbecuing on the lawn, or late-night stargazing. It was tiring, but great fun.

The Juniors' summer barbecue at the zoo in August was great. Juniors had to work for their supper and we were pleased to welcome the Chester Fringe Group Leaders along. They set Juniors the task of building a dinosaur on the Jubilee lawn - and that was exactly what they did with brilliant results. Everyone took part in making hoops and assembling these into limbs which were then joined together to make the dinosaur. It was getting dark when we finished and zoo visitors the following day were surprised to see the new addition!

Perhaps one of our most over-subscribed trips of the year was the visit to Knowsley Safari Park in September. Knowsley's Curator, John Hall, jumped onto our bus when we arrived and gave us a guided tour of the park. We also visited Knowsley's sealions and the new children's farm, which was very popular.

We were incredibly lucky for our visit to Tatton Park in October as the sun shone for our walk across the park with two of Tatton's wardens, who explained the principles of deer management. We were just in time for the start of the annual 'rut' and were fortunate to get remarkably close to a great many of the red and fallow deer. We spent the afternoon having a guided tour of the Home Farm, where we met *Pearl* the Berkshire sow at very close quarters, and were also able to hold *Ronald* the tiny two-day-old Gloucester Old Spot piglet and groom Caesar, the shire horse and clean his hooves.



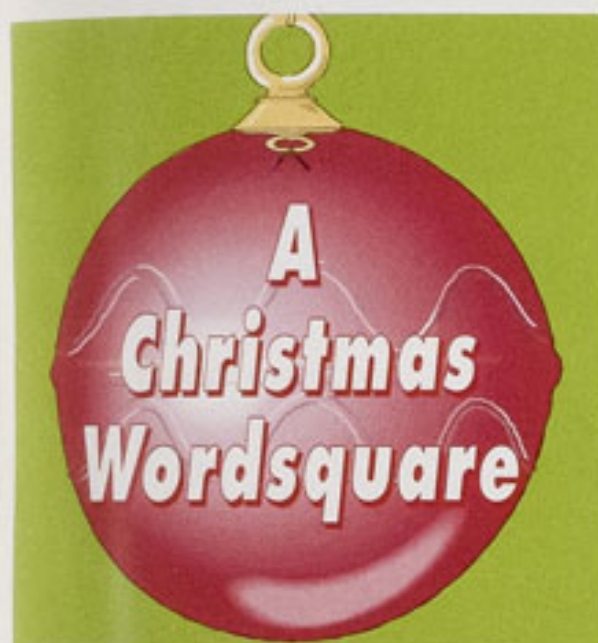
▲ Canoeing lessons at Oakham.



▲ Team photo at Rutland.



▲ Building the dinosaur, at the summer barbecue.



There are many animals associated with Christmas. How many of them can you find hidden in our wordsquare? Words can go forwards, backwards, up, down or diagonally.

The words to find are:
 ASS REINDEER CATTLE OX
 SHEEP CAMEL DONKEY ROBIN
 ARK LION TURKEY MOUSE.

A £10 zoo gift voucher for the first correct entry opened after the closing date, 31 January 1997. Don't forget to include your name, address and membership number, and send to Christmas Wordsquare, Chester Zoo, Cheshire CH2 1LH.

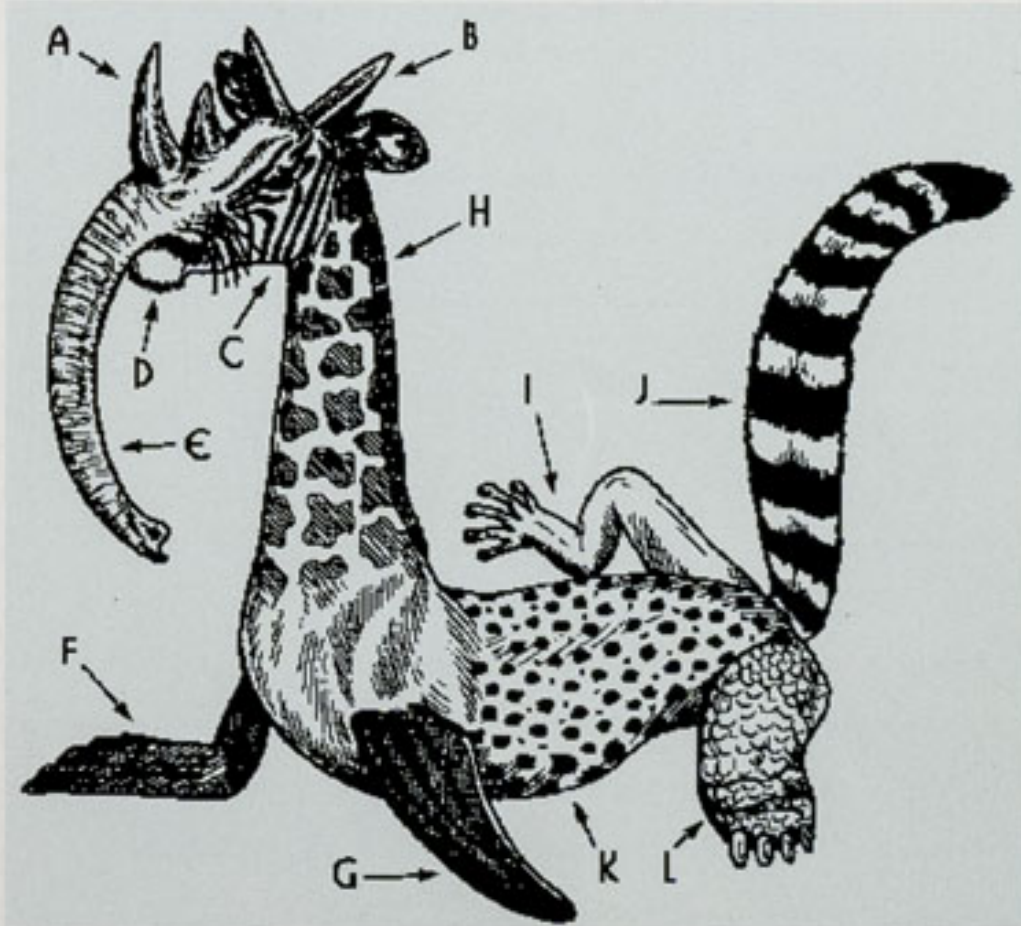
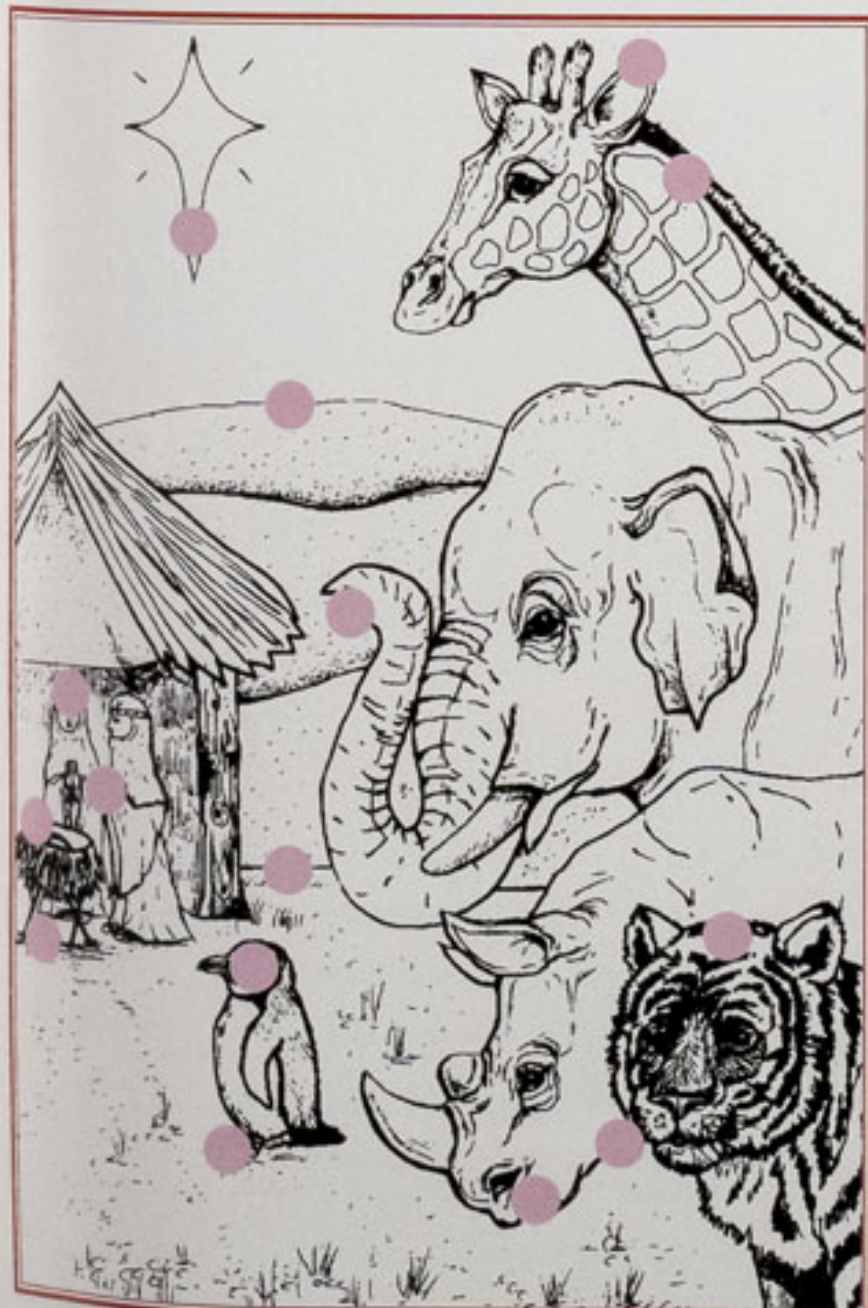
R	O	X	M	O	U	S	E
L	E	M	A	C	Z	G	H
I	N	I	B	O	R	O	I
O	D	O	N	K	E	Y	L
N	S	A	C	D	V	E	R
W	D	S	H	E	E	P	N
F	U	S	E	L	K	E	A
Y	E	K	R	U	T	B	R
C	A	T	T	L	E	P	K

PUZZLE SOLUTIONS

The '12 animals in one' competition in the last issue stumped everyone! We had lots of entries with 11 out of 12 correct answers. But it was 'B' that no-one got right. It was a BONGO - and, yes, it was a very hard one! The first almost correct entry out of the box was from Elizabeth Dean of Boughton, Chester. Elizabeth wins the £10 voucher to spend in the zoo shops. Congratulations! The answers are: A - Rhino. B - Bongo. C - Zebra. D - lion or tiger. E - Elephant. F - Sealion. G - Penguin. H - Giraffe. I - Frog or lizard. J - Ring-tailed Lemur. K - Cheetah. L - Tortoise.

SPOT THE DIFFERENCE

How many differences did you spot? Check with the answers marked here!



Penny and all the Zoo staff wish our junior members a very Happy Christmas and a wonderful 1997!



Arrivals Births and Hatchings

AUGUST, SEPTEMBER & OCTOBER 1996

MAMMALS				BIRDS <i>continued</i>			
*Buffy Headed Capuchin	<i>Cebus apella xanthosternos</i>	0.0.1	Birth	Green Wood Hoopoe	<i>Phoeniculus purpureus</i>	1.1.0	Received
*Margay	<i>Felis wiedi</i>	1.1.0	Arrival	Lilac-breasted Roller	<i>Coracias caudata</i>	0.1.0	Received
*Indian Elephant	<i>Elephas maximus</i>	0.2.0	Received	*Great Indian Hornbill	<i>Buceros bicornis</i>	0.1.0	Received
*Black Rhinoceros	<i>Diceros bicornis</i>	1.0.0	Arrival	White-rumped Shama	<i>Copsychus malabaricus</i>	0.0.1	Hatched
*Guanaco	<i>Lama guanicoe</i>	2.1.0	Born	White-rumped Shama	<i>Copsychus malabaricus</i>	1.2.0	Received
Axis Deer	<i>Cervus axis</i>	0.1.0	Born	*Red-tailed Laughing Thrush	<i>Garrulax milnei</i>	1.1.1	Received
Nilgai	<i>Boselaphus tragocamelus</i>	2.0.0	Birth	Blue Whistling Thrush	<i>Myiophonus caeruleus</i>	1.1.0	Received
*Kafue Flats Red Lechwe	<i>Kobus lechwe kafuensis</i>	0.1.0	Born	Pekin Robin	<i>Leiothrix lutea</i>	0.0.2	Hatched
*Blackbuck	<i>Antelope cervicapra</i>	0.1.0	Born	Silver-eared Mesia	<i>Leiothrix argentauris</i>	0.0.1	Hatched
*Burmese Brow Antlered Deer	<i>Cervus eldi thamin</i>	0.0.2	Born	Oriental White-eye	<i>Zosterops palpebrosa</i>	0.0.2	Received
BIRDS				Asian Glossy Starling	<i>Aplonis panayensis</i>	0.0.2	Hatched
*Chilean Flamingo	<i>Phoenicopterus chilensis</i>	0.0.2	Hatched	Grosbeak Starling	<i>Scissirostrum dubium</i>	2.2.0	Received
*Black-billed Whistling Duck	<i>Dendrocygna arborea</i>	0.0.6	Hatched	African Pied Starling	<i>Spreo bicolor</i>	1.1.0	Received
White-faced Whistling Duck	<i>Dendrocygna viduata</i>	1.0.0	Received	*Bali Starling	<i>Leucopsar rothschildi</i>	0.0.1	Hatched
*South Georgia Pintail	<i>Anas georgica georgica</i>	1.1.0	Received	REPTILES			
Ringed Teal	<i>Callonetta leucopbrys</i>	0.0.1	Hatched	Leopard Gecko	<i>Eublepharis macularius</i>	0.0.18	Hatched
*Ringed Teal	<i>Callonetta leucopbrys</i>	1.0.0	Received	Madagascar Giant Day Gecko	<i>Pbelsuma madagascariensis grandis</i>	0.0.3	Hatched
Rosy-billed Pochard	<i>Netta peposaca</i>	0.0.2	Hatched	*Sand Lizard	<i>Lacerta agilis</i>	0.0.10	Hatched
Rosy-billed Pochard	<i>Netta peposaca</i>	1.1.0	Received	Collared Lizard	<i>Crotaphytus collaris</i>	0.0.2	Received
Hooded Merganser	<i>Mergus cucullatus</i>	0.1.0	Received	Bearded Dragon	<i>Acanthodracro barbatus</i>	0.0.6	Received
Ruddy Duck	<i>Oxyura jamaicensis</i>	0.0.4	Hatched	*Boa Constrictor	<i>Constrictor constrictor</i>	1.0.0	Received
Bare-faced Curassow	<i>Crax fasciolata</i>	0.0.1	Hatched	Honduran Milk Snake	<i>Lampropeltis triangulum</i>	0.0.5	Hatched
*Red-legged Partridge	<i>Alectoris rufa</i>	3.3.0	Received	INVERTEBRATES			
*Golden Pheasant	<i>Chrysolophus pictus</i>	1.0.0	Received	*Coral	<i>Euphyllia picteti</i>	0.0.2	Received
*West African Crowned Crane	<i>Balearica pavonina pavonina</i>	0.0.2	Hatched	*Frog Spawn Coral	<i>Euphyllia divisa</i>	0.0.4	Received
Masked Plover	<i>Vanellus miles</i>	1.1.0	Received	*Bouquet Coral	<i>Euphyllia glabrescens</i>	0.0.2	Received
Speckled Pigeon	<i>Columba guinea</i>	0.0.1	Hatched	*Star Coral	<i>Favia</i> sp.	0.0.2	Received
Rock Dove	<i>Columba livia</i>	0.0.1	Hatched	*Star Coral	<i>Favites</i> sp.	0.0.2	Received
Crested Bronzewing Pigeon	<i>Ocyrbaps lophotes</i>	1.1.0	Received	FISH			
Crested Bronzewing Pigeon	<i>Ocyrbaps lophotes</i>	0.0.1	Hatched	Halfbeak	<i>Nomorambus ebrardti</i>	0.0.23	Bred
*Vosmaeri' Eclectus Parrot	<i>Eclectus roratus vosmaeri</i>	0.1.0	Hatched	*Dwarf Rainbow Fish	<i>Melanotaenia praecox</i>	0.0.25	Received
*Red-fronted Macaw	<i>Ara rubrogenys</i>	0.0.5	Hatched	Dwarf Rainbow Fish	<i>Melanotaenia praecox</i>	0.0.50	Bred
*Blue-eyed Cockatoo	<i>Cacatua ophthalmica</i>	0.0.1	Hatched	Fork-tailed Rainbow Fish	<i>Popondetta furcata</i>	0.0.9	Received
Red-crested Turaco	<i>Tauraco erythrolophus</i>	0.0.1	Hatched	Banggai Cardinal Fish	<i>Pterapogon kauderni</i>	0.0.3	Received
*Schalow's Turaco	<i>Tauraco schalowi</i>	0.0.1	Hatched				
*Barn Owl	<i>Tyto alba</i>	0.0.2	Hatched				