

Chester
ZOO
Life

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Chez Nous



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This has been a typical year so far - in so far that to be typical a year has to have its quota of atypical things happening!

The weather at Easter was awful. It was cold and wet and most people wanted to stay at home. We have had cold Easters and we have had wet Easters - but this year, the two together - plus snow! - really did justify the description "inclement."

Since then we have been slowly catching up and by the beginning of August seem to be level pegging with last year.

School parties in July were really quite well behaved. Traditionally, a visit to the zoo after the exams used to be a time when the teachers did not structure the visit and the children regarded it all as a bit of a lark. By and large, most schools accept that a structured visit is not only more beneficial to the pupils, it is also more enjoyable. We used to dread the post-exam visits from some secondary schools, but in recent years, the untoward incidents have become fewer.

Zoo in Bloom

The warm, wettish weather of spring gave the plants a very good start for the season, which was just as well because the prolonged - and most welcome - hot weather has been taking its toll on the demand for the

water. We have again won the Chester in Bloom award the North West section of the Britain in Bloom competition.

New Arrivals

Lots of young animals have been born in recent months - the back cover list of new arrivals has had to be printed in smaller type to get them all in! Nowadays it is simply not acceptable for zoos to breed young animals knowing full well that they have no future once they have ceased to be young. On the other hand, it is essential to keep populations ticking over with young animals arriving in enough numbers to replace the older animals. The arrival of a sealion pup has been most gratifying, for it has been too long since the last one was born here. This new pup, together with a baby orang utan, two camel foals and numerous birds, (see Roger Wilkinson's photographs on the centre pages) provided lots of lovely press photographs just in time for the school holidays.

State of the Ark

There was a lot of media flurry over the BBC's "State of the Ark" series. (Why have the concluding discussion programme at 11.30 pm on a series broadcast at 9.30 pm? Could it be because the pro-zoo points won the argument?) Some of the scenes, particularly those filmed at that obscure zoo in Belgium and another in Spain, were very distressing. Such zoos have no place in what zoos like Chester are trying to achieve. But a section of the media always assume that because such things happen, all zoos are wrong. (Does anybody seriously believe that the deplorable Romanian children's homes, shown on TV a couple of years ago, are good grounds to close down all children's homes?) I find it hard to take the carping from the hysterical few, who seem to need such programmes to switch on their indignation. They seem to assume that those of us running zoos like Chester are responsible for what goes on in, for example, Eastern Europe.

Our job is to run our own zoos as best we can and do what we can to persuade others to follow suit. But we cannot be expected to be the salve of everybody's consciences by making us responsible for the shortcomings of zoos far beyond our financial or political abilities to control.

Developments

Work has been going on to improve the aviaries inside the Tropical House and to provide a level-crossing for the rhinos, so that we can move them about more easily between their various paddocks. Like many such improvements needed urgently, no sooner was it finished (to a very high standard) than the rhinos decided they did not want to know, and only the Prairie Marmots thought what a marvellous new opportunity had been provided! It took several days before Parky decided to cross over to the paddock on the other side.

The new car park, in preparation for the new gate, is now well advanced. It has been masterminded and managed by our own engineers and works staff and I can say with conviction that it has been done to a very high standard, for a lot less than if we had put the whole job out in a single contract. Sadly, although this first phase qualified us for a European grant of £320,000, we have been locked out of further such grants because Whitehall has redrawn the boundary of the qualifying area. We are now a canal's width the wrong side of the boundary! What a shame.

◆ Front cover:- Dr Gordon McGregor Reid, the zoo's Curator in Chief, felt it was time that fish featured on the front cover of the magazine! Yolksac larvae of Flamehead Cichlid. Extinct in Lake Victoria, East Africa, this species is breeding successfully at Chester Zoo. Photographer: Edward Parker



8 October 1994 - 2.30 pm in the Lecture Hall:
Professor Brian Gardiner, Kings College, University of London "Jurassic Park revisited: studies on birds and dinosaurs".

12 November 1994 - 2.30 pm in the Lecture Hall:
Pat Wisniewski, Curator, Wildfowl & Wetlands Trust "Twenty Years of the Wildfowl and Wetlands Trust, Martin Mere and how I saved the Slug in my Spare Time".

ADOPTERS' DAYS

The two dates for this year's annual Adopters' Days are Sunday 9 October and Saturday 15 October. Invitations are issued with this magazine. Please come and join us for a day of fun at the zoo - it's our way of saying "thank you" to all our adopters for continuing to support us. As usual, keepers will be available to answer your questions and lots of other activities are planned.

CHESTER ZOO ONE HUNDRED CLUB

There was great excitement as the computer - with the help of Council Chairman Mrs Bea Jones - picked out the winners for the July draw - our first £1000 prize!

The winners for the draws made since the last issue of Zoo Life are:-

May: £100	Mrs S. J. Cheetham
£50	Mrs M Bryceson
£50	Mr K. J. Sims
June: £1,000	Mr Andrew Stevens
£100	Mr P Mills
£50	Mrs Mary Doogan
£50	Mr Alan Whitwell
July: £100	Mr W.A.K. Taylor
£50	Mr R.W. Grice
£50	Mrs Mary Woolley
£50	Mr Derek Lyon.

If you are not already a member of the One Hundred Club, and would like to join, please contact Alan Sykes or Maureen Allsopp. A modest outlay of £5.00 per month could bring a useful cash prize!

MEMBERS' MEETINGS 1994/95

3 December 1994

Members' Christmas lunch in Oakfield Restaurant at 12 noon.
Ring Maureen (0244 380280 ex 203) to reserve your place -
£12.95 adults, £8 children (3-11 years).

Talk by Ross Meredith/Steve Hogarth, Chester Zoo Mammal Keepers entitled "Great Apes at Chester Zoo" will start at 2.30 pm in the Lecture Hall. Members are welcome to come to the meeting without taking lunch.

14 January 1995 - 2.30 pm in the Lecture Hall:

Mr M Freeman - "Focus on Bats"
11 February 1995 - 2.30 pm in the Lecture Hall

Dr D A P Cooke - "An Ambition Achieved".
A visit to Kenya's Game Parks.

18 March 1995 - 2.30 pm in the Lecture Hall:
"The Inconvenient Cat" - Paul & Lena Bottriell

8 April 1995 - 2.30 pm in the Lecture Hall:
"A Zoo Review" by the Director, Dr M R Brambell

13 May 1995 - AGM - 2.30 pm in the Lecture Hall.

Members are reminded that a charge of 50p per meeting will be made at the door to offset expenses for bringing speakers and towards defraying the costs of maintaining the meeting rooms.

Tea and biscuits will be available at meetings at no extra cost.

F.F.P.S. AUTUMN PROGRAMME 1994

23 September:

An Evening of Russian Wildlife
Fergus Beeley of the BBC
Natural History Film Unit gives an illustrated talk on the diversity of the natural history of Russia.

14 October:

An Evening of the King Cheetah.
Lena Godsell Bottriell talks on the work she and her husband have carried out searching for the legendary striped cheetah of southern Africa.

18 November:

An Evening of Mountain Gorillas.
Jillian Miller of the Diane Fossey Gorilla Fund gives an illustrated talk about the work of the fund in central Africa, including an update on the welfare of the gorillas during the crisis in Rwanda.

The meetings are held in the zoo's lecture theatre. Doors open at 7 pm for a 7.30 pm start. Tickets can be booked through Penny Rudd at the zoo (0244 380280 ext 215) or through Alan Woodward in the evenings (0244 373312)

Price is £5.00 for FFPS members, £5.50 non-members, and includes a light buffet and glass of wine.

ANNUAL RAFFLE

Once again we are offering the opportunity to win a worthwhile prize and at the same time make a contribution to our Scholarship Fund.

Each year the North of England Zoological Society awards an annual studentship to allow an undergraduate to carry out a specific area of research. Last year's raffle income is funding Gillian Sheppard of Oxford Brookes University, in her behavioural study of ring-tailed lemurs in British zoos. Full details of this year's prizes are included in the insert with this magazine. One of the major prizes is this lovely painting of Strelka, one of the zoo's Siberian tigers, generously donated by local artist John Axtell. Two books of tickets have been enclosed for each adult member or adopter. The draw will take place at the members' meeting on 3 December, and all stubs and payments must be received by 12 noon on that day.



ZOO REVIEW

TOUCHING TIMES

Our multi-talented FEDS (Friends of the Education Division Services) are building up yet another visitor-contact activity, to make a zoo visit even more memorable.

Brenda Norgain, Head of Education, says she has come to realise how much people enjoy being told about the animals, when they are close enough to look at the actual animals referred to. Visitors also enjoy the opportunity to look closely, and to touch - something, not possible, of course with most of the animals! But it is possible to offer a "tactile experience" using items either from our own collection, or loaned by Customs and Excise. So, at various stations around the zoo, you may find a "Want to know more?" sign, with a FED on hand to chat, give information - and offer the chance to handle some relevant material. For example, at the Orang-utan House, you can "feel" the oranges in safety - by handling some of the hair lost during moulting. At the penguin pool, visitors can marvel at the tiny feathers, collected when the birds moult each year. At the porcupines, there's a chance to feel how sharp a porcupine quill is - collected by staff when they fall off.

As the numbers of our volunteers grow, we hope to have all "stations" manned - but that is still some way off. However, keep an eye open - and take the opportunity when you see it!

OAKFIELD THEME EVENINGS.

A reminder of the last two of these special evenings in the Oakfield Restaurant for this year.

On 21 October, there is a great Scandinavian Evening, and the Victorian Evening, on 18 November, is planned as a nostalgic evening in celebration of the 100th anniversary of George Mottershead's birth, as well as the Zoo's 60th Jubilee.

THANKS, MINISTER



A Chester Zoo gardener is one of the first people in the country to achieve NVQ Level 4 certificate in Horticulture.

Richard Hoddinott, 28, of Newton, Chester, received his award from Mr David Hunt, Employment Secretary.

Richard took just nine months to achieve all four levels on the National Vocational Qualification, and within two weeks of qualifying had secured his job working in the zoo's award-winning gardens.

Our photograph shows Richard, left, receiving his award from the Minister, Mr David Hunt.

WORLD BRONZE



Wendy Locker, of the zoo's retail staff, is the world's third best woman angler! Wendy won her place in England's four-member team to compete in the world championships, in Bulgaria. The British team were third overall, and Wendy won the individual bronze medal.



BABY BOOM

Early Summer was a busy time for keepers, with new arrivals in many sections of the zoo.

In the Orang-utan house, Kibria (above) is proving a very tender mother to her new baby.

There are two new arrivals on the camel paddock - the latest one pictured below - and the onagers have also produced two foals.

Onagers - the asses of biblical days - are down to less than 400 in the wild. Fergie the sealion has given birth to her first pup, and there are also new youngsters in the Axis deer, Reindeer, Red Lechwe and Rodriguez bats. Some of the bird section's successes are highlighted on the centre pages.



Tubilee Day



◆ Even the BBC TV crew bought 1p ice-creams!



◆ Brian Lloyd, Assistant Catering Manager, found it hard to keep up with demand.



◆ "Carnival of the Animals" - infant school entertainment!

The day of celebrations for the zoo's 60th birthday – 13 June – was happily a bright sunny one.

Word had got about that until midday, zoo entrance would be at 1934 prices – one old shilling, or 5 new pence.

One enthusiastic coach load arrived just after 8.30 am, to be sure of not missing out!

The 1930's prices continued inside the zoo, with Walls ice cream on sale at 1p for a sandwich wafer!

One little lad was so excited at this he started by ordering three – and quickly changed the order to five!

Entertainment was provided by infant schools from all over the North West, who produced animal-themed song and dance routines.

BBC Children's Television joined in the fun, filming the day for "The Really Wild Guide To Britain."

The presenter was dressed as a 1930's zookeeper – or the nearest approximation they could come up with to an old zoo uniform!



◆ John Eddowes of Walls ice cream brought along one of the few remaining original "stop-me-and-buy-one" trikes.

ZOO EXPEDITION TO GASHAKA GUMTI



◆ On top of Death Mountain, 7,900ft

I recently spent four very exciting weeks in Gashaka Gumti, the largest wildlife park in Nigeria. At the request of WWF and the Nigerian Conservation Foundation, I conducted the first ever survey of conservationally sensitive fishes and other aquatic life of the park and trained African colleagues in field research methods.

Originally formed as a game sanctuary in 1972, Gashaka Gumti was redesignated as a National Park in 1991. It now takes in 6,700 sq. kilometres (2,600 sq. miles) of moist forest, savanna woodland and montane grassland. These varied habitats support a remarkable diversity of plants and animals and exist in a complex mosaic which alters dramatically with altitude, much of the park being mountainous. Typical woodland creatures, such as golden cat, giant forest hog and yellow-backed duiker thus rub shoulders with savanna dwellers like lion, Cape buffalo and hartebeeste. Primates are particularly well represented, partly because there is no local tradition of hunting them. Much in evidence are baboon, chimpanzee, black & white colobus, mona and white-nosed monkeys. Altogether, more than sixty kinds of mammal have been found in Gashaka, not including many bats and small rodents. One hundred and nineteen bird species are recorded from a survey in the Mambila plateau region, partly contained in the park. Prior to my visit, there was no scientific knowledge of the fishes and aquatic invertebrates, nor were the major freshwater habitats documented.

ON THE BALL

My passage out to this naturalists' paradise did not progress as smoothly as

Words and pictures by Curator-in-Chief, Gordon McGregor Reid.

planned. Flying out from London, I got stuck in Lagos - the hot, humid and aroma-rich Nigerian capital. Nigeria was playing football in the African Cup and airport staff, eager to watch the match, had absconded with keys to the aviation fuel store! At last, ably helped by Ibrahim



◆ A fellow Glasgow University man!

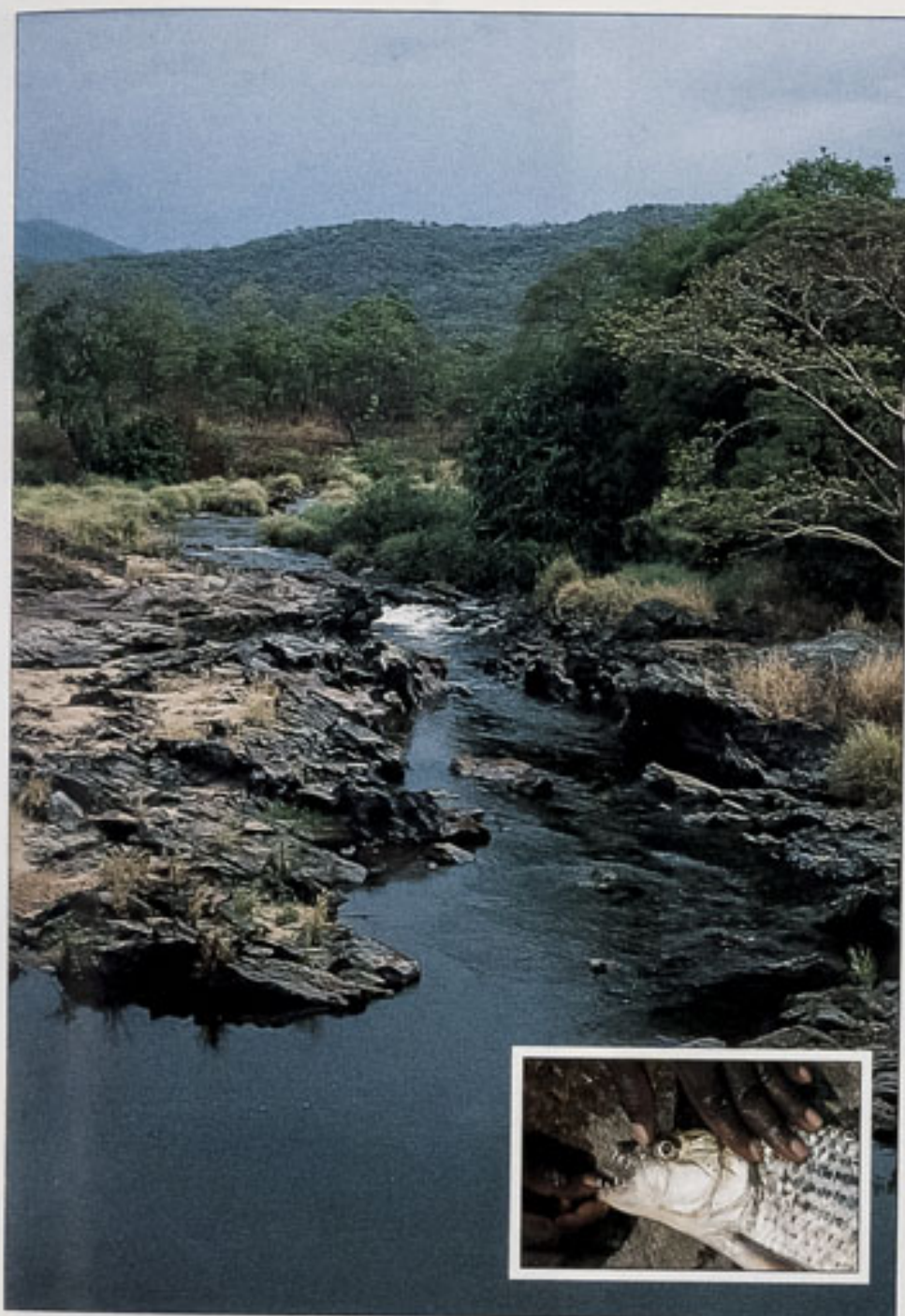
Inaharo of NCF, I managed to catch a flight far north to Yola in the Sahelian zone. I was kindly met by Faith Ananze the WWF/NCF Gashaka Gumti Project Officer. Travelling south by landrover, we eventually arrived at the small town of Serti where the Park Headquarters are located (but which lies well outside of the park boundary). I had useful briefing

sessions with Mr C.P. Shany the General Manager and his staff. Faith then escorted me to the local market where I stocked up on supplies for use in the field. Yam, coco-yam, pawpaw, cassava, gari, sweet potato and mango were among the exotic foodstuffs which I carried with me on the long bumpy road to Gashaka village, which is base camp and the southern gateway to the park.

The villagers were very friendly and I met with Wakila Adullahi the Chiefs' representative. I was also introduced to the assembled expedition team including the Sarkin Ruwa (Head Fisherman of the village), Saidu Isa (Senior Game Guard and interpreter), Sule Zarto (Research Officer) and Yusuf Amos (Research Student, Biology Department, University of Yola). A charming stone-built cottage became my home. It came with a panoramic view but with defective mosquito netting, as I soon discovered on the first night! The next two days were spent in unpacking and testing equipment, including diving gear and electronic meters for measuring water chemistry. With help from Yusuf and Sule I also made a small observation fish tank, enabling me to take photographs of interesting specimens. By way of scientific sponsorship, most of the equipment was generously supplied by the Smithsonian Institution, Washington and by the American Museum of Natural History, New York. It was donated to the park authorities on completion of the fieldwork.

HIPPO FISH

The team was soon ready to investigate the watercourses. A dense network of



◆ River at Gashaka village. Inset: Tigerfish, Africa's answer to the Piranha habitats. One of the most interesting dives was at the Hippo Pool on the Mayo Kam. Only one hippopotamus was in residence at the time but there were masses of sucker fish (*Labeo* spp.), which graze on the flanks of hippos and are the underwater equivalent of tick birds.

SNAKE IN HOT WATER

As my fitness level increased, team forays took us deeper into the forest. There were reputed to be geothermal springs in the park and I was anxious to visit them to test the water quality and to see what life might exist there. A shallow, boggy outflow seeping to the Mayo Jiagum was quite hot (44°C). Chequered *Barbus* fishes swam near the centre but not in water above 40°C. A black and white striped, metre long 'cobra' glided under the surface, causing momentary panic, but it proved to be the non-venomous, fish-eating Smyth's snake (*Grayia smythii*). A second spring, at Matashrip, was very hot (50.8°C) with water spurting directly from the rocks and plunging to the pool below. Some frogs, which had accidentally fallen in, floated dead and overcooked. Small fishes with appropriately 'red hot' eyes (*Garra* sp.) darted in-and-out of the hot broth, but wisely did not go near the source!

DEATH MOUNTAIN

The park contains Gangirwal or 'Death Mountain' – the highest point in Nigeria, soaring above 2,400 metres (over 7,900 feet). Climbing Gangirwal was a key expedition goal because I wanted to investigate the cool, rocky, torrential streams which drain down to warm, muddy lowland rivers and undergo remarkable biological changes in the process. The mountain trip was the longest and most arduous trek that we undertook. On the way, we stayed as overnight guests in local villages and met with marvellous hospitality. Ascending, we encountered the sort of vegetation more typical of Scotland than the tropics: bracken, gorse, brambles and heather! It also became misty and fairly chilly (17°C). We reached the summit a bit breathless and were disappointed to find that the streams had no fish! To compensate, there was breathtaking scenery and a dazzling, starry night sky.

Overall, I managed to sample fourteen separate sites on different tributaries at different altitudes and to identify more than fifty different species of fish. Basic biological inventory work is essential in developing conservation action plans. It is good that Chester Zoo can, from time-to-time, help out with fieldwork of this sort. I took my leave from Gashaka Gumti only with regret. I will never forget the kindness and support of my Nigerian friends nor the astounding ceremonial dance that was organised in my honour on the last evening.

high gradient streams to the west of the park forms a watershed for the Taraba branch of the vast Niger-Benue river system, the third largest in Africa. Protecting this watershed is the highest priority set in the management policy for the park. The abundant, ever-present, water supply in Gashaka means that game thrives throughout the park rather than being concentrated around water holes. If the watershed markedly deteriorates, its vital life-support function will be curtailed and particular plants and animals will ultimately be lost. Any deforestation of the steep forested slopes increases soil erosion and a life-choking silt spoils the rivulets and the rivers downstream. There may also be various adverse effects on temperature and chemistry: the sun overheats brooks if shade from the tree canopy is lost, and the absence of leaf litter may mean uncontrolled levels of acidity.

We first explored the Mayo Jiagum, a rocky river running near to base camp. Diving in a crystal clear pool (and glancing around warily for crocodiles!), I was amazed to see small fishes with 'goggles' swimming strongly in the rapids. It seems that these particular characin fish (*Bryconathops* sp.) have evolved the goggles to protect their eyes from the grit which swirls around. Also spotted in the torrent was a strange, flattened, algae-scraping fish called a goby cichlid (*Gobiocichla* sp., possibly new to science). Another surprise came when the chemistry of the water was tested. It mainly proved to be very alkaline: the opposite to what one would expect in a humus-rich forest. I was later able to relate this alkalinity to the scarcity of top minnows (*Aphyosemion* spp.) – tiny, brightly coloured 'mosquito eaters' which are often abundant in weedy, acidic

◆ Gordon with villagers and "Yom" When fishing, they use bundles of intoxicating Yom leaf.



Jane Goodall Presentation

To mark its Diamond Jubilee, Chester Zoo presented the Society's first gold medal to Dr Jane Goodall, founder of the Jane Goodall Institute, at a reception held in a packed marquee at the zoo on 26 May.

Director Dr Michael Brambell, made the following citation to Dr Goodall, before the presentation was made by Mrs Beatrice Jones, Chairman of the North of England Zoological Society.

Sixty years ago the North of England Zoological Society took over the running of Chester Zoo. At that time very little was known about how many of the animal species that were likely to be kept in zoos actually lived in their wild habitats.

Animal Behaviour was a subject not taken seriously by many biologists and Ecology, though the word was already in use, was treated with great suspicion. There was a feeling that unless you could put numbers to your observations they were not science, and the only place to make carefully controlled and precisely measured observations was in the laboratory or at least where laboratory conditions could be applied. Of course, there were exceptions, but it was not until well into the second half of this century that biologists and public alike were jolted into an understanding of just what has to be done to study the behaviour and ecology of such complex species as chimpanzees.

In 1960, a young woman, Jane Goodall, with her mother and an African assistant, set up camp on the east shore of Lake Tanganyika, and began the painstaking observation of the population of chimpanzees that lived in the Gombe. She had been encouraged to do this by the late Dr. L. S. B. Leakey, who had done so much to unearth East Africa's fossil record of early hominids.

Jane did not stay for the few weeks



◆ Mrs Bea Jones, left, with Dr Jane Goodall

or months that other researchers might have regarded as more than enough to get the material for a doctoral thesis. She stayed for years and years, and the work she started is still going on. She has recorded the events in the daily lives of chimpanzees across whole life times. As a result, our understanding of this species is vastly different, to what it was at the time this Society was founded.

Chimpanzees are our nearest living relatives. They are very close to us in their genetic make-up, in aspects of their behaviour and in their anatomy and physiology. True, they have not, as far as we know, produced their equivalent of a Shakespeare or an Einstein. They have not the ability, for example, to hit the moon – though Boris has made many attempts to hit me! Whether they are so close as to be included in our own genus or further away, the fact remains that they are our closest living relative. It is right that we

should know as much about them as we possibly can. And, knowing all that we do about them, it is right to treat them with extra special deference and respect, to care for them as a species and to care for the individual chimpanzees whose lives have been disrupted by human interference, whether such disruption was wanton or unavoidable.

It is out of our recognition that it was Jane Goodall who broke through the log jam, preventing our fuller understanding of this species, and, arising out of her own experience of chimpanzees in the wild, who set up the Jane Goodall Institute to extend our concern and care for these animals, that this Society, whose colony of chimpanzees is now approaching its fifth generation, has the great pleasure and honour of presenting to her its first Gold Medal.

The wording on the medal is:-
"Presented to Dr. Jane Goodall for her life-long work furthering our understanding of Chimpanzees.

HABITAT CONSERVATION

As part of our commitment to conservation, Chester Zoo is helping, where finances allow, with species conservation in the wild. We are supporting Northern White Rhinoceros, Philippine Spotted Deer and Buffy-headed Capuchin. We are also providing personnel support in other areas by seconding staff when asked to advise - eg Northern Nigeria (see Gordon Reid's article on page 6), India, Lake Tanganyika and the Congo.

The Zoo Federation has recently completed a survey of the involvement of its members in *in-situ* conservation projects. This is the first survey of its kind undertaken by the Federation and it will form the basis of a regularly refined and updated database.

Preliminary results show that over the last five years, Federation members have supported over 66 projects in 35 different countries, amounting to a financial contribution of well over five million pounds.

Activities have targeted not only individual species, such as the British Field cricket, but also larger taxonomic groupings. Marwell Zoo gives financial support for the Chipingali/Marwell Duiker Research and Breeding Centre in Zimbabwe and there is a £30,000 commitment from Paignton Zoo to habitat and species research of the white-bellied spider monkey in Venezuela.

Entire ecosystems have also received attention. For example, "Programme for Belize", a scheme which purchases and protects important areas of habitat, has so far received £17,000 from Drusillas Park Zoo; Jersey Zoo has been involved for a number of years in the restoration of Round Island, off the coast of Mauritius.

Such high profile projects are often extremely demanding in terms of funds and facilities and are therefore beyond the scope of many Federation Zoo members. However, there are more subtle categories of support, which although less spectacular, still provide a considerable resource.

The most notable of these contributions is the provision of

personnel with expertise in animal management and husbandry. Federation collections have provided staff as consultants, field researchers or husbandry experts for over 40 field projects and conservation workshops in the last 5 years. This figure includes only those people who remained in the employ of the zoo during and after their involvement in the project. No figures are available for zoo-trained personnel who left collections to use their expertise permanently *in-situ*. (NB - Like Chester Zoo's Vince Smith, now running a chimpanzee sanctuary in Mount Kenya).

Education is a very effective tool for conservation and is a field to which the Federation has a strong commitment.

Caroline Lees, Conservation Co-ordinator for the Federation of Zoos of Great Britain and Northern Ireland, writes on the work of other Federation members.

Well over three quarters of a million children use Federation zoos as an educational resource each year.

Support for overseas projects tends to attract a lot of publicity and British zoos have been criticised for their lack of commitment to native species. In fact, Federation members are currently involved in recovery projects for 11



◆ Breeding Barn Owls at Chester Zoo

species native to Britain (eg - Chester Zoo's Barn Owl programme). Support for British wildlife is gathering momentum, and four more projects for British species are planned to commence during the coming year.

This is just a brief overview of the current involvement of Federation members in conservation projects over and above their continuing commitment to co-ordinated captive breeding programmes. It indicates the awareness of the British zoo community that zoos are not an alternative to *in-situ* habitat and species conservation, but are capable of providing an invaluable extra resource; not only as species "safety nets" but also as centres for raising awareness and funds for *in-situ* projects, and for training field staff. The fact that there are 15 projects currently in an advanced stage of planning suggests an upward trend in this holistic approach to conservation problems, which is compatible with the direction of progress envisaged by the World Zoo Conservation Strategy.

BP CONSERVATION AWARDS 1994 by Gordon McGregor Reid

In May I was invited to attend the ceremony for the BP Conservation Awards, held at Brittanica House, their plush London headquarters.

Since 1990, British Petroleum has supported international expeditionary projects organised by competing groups of enthusiastic biology students. Each year, £20,000 worth of grant-funding is made available to these young scientists to allow them the opportunity of engaging in worthwhile conservation activities abroad. In addition, BP gives £7,500 each year for critical follow-up projects. The expeditions must also involve local students or counterparts and, of course, have clearance from the host government.

Among several successful teams due to depart overseas shortly, was one from the University of Oxford led by David Bowes-Lyon. David is no stranger to

Chester Zoo because he worked here as a student keeper in 1991. Curator of Mammals Nick Ellerton kindly took David under his wing and helped him develop his original plans for fieldwork in Kyabobo in Ghana. This is a proposed National Park lying in the transitional zone between the high forests of western Ghana and the savanna grasslands of Togo and Benin. The expedition aims to collaborate with the Ghanaian Department of Wildlife to produce a survey of certain indigenous plants and small mammals. David told me that working at Chester Zoo greatly inspired him to study animals in Africa. It is always nice to get feedback about the beneficial influence of the Zoo and its staff.

We wish the best of luck to David Bowes-Lyon and to the rest of the Oxford team!

SUMMER ARRIVALS

Curator of Birds, Dr Roger Wilkinson, takes beautiful photographs of his bird collection – as our centre spread of this issue shows.

It took a bit of persuasion for him to turn his lens onto the mammal collection – but the results are worth it!



▲ Fergie the sealion gave birth to her first pup in May, but it was several weeks before the youngster was ready to make an appearance in the big pool – much to the delight of visitors. The photograph shows the pup with its grandmother.

▼ Onagers are one of the rarest creatures in the zoo's collection. These beautiful animals are down to less than 400 in the wild, so keeping staff were delighted when two foals were born in June. They are shown here on the paddock with their mothers.



JUNIOR MEMBER'S FIELD TRIPS AND MEETINGS

AINSDALE NATURE RESERVE

Saturday 17th September 1994

The lovely sand dunes of the Ainsdale Nature Reserve near Southport beckon us. The nature trails and wooded areas will reveal their treasures under the observant eye of the Reserve's warden. September may be breezy by the sea, so come equipped for cool weather. Over eights invited. The bus will leave the Staff Car Park at 10.30 am, returning at 4.00 pm.

THE RED DEER RUT AND

HOME FARM AT TATTON PARK -

Saturday 22nd October 1994

After a visit to the rare breeds at Tatton's Home Farm during the morning, we will meet up with the Park Rangers who will take us into the Deer Park to observe the Red Deer Rut and then take us to look at the Deer Farm. Picnic and wellies please. The bus will leave the staff car park at 10.00 am returning to the Zoo for 4.00 pm. Over tens invited.

THE LAKE DISTRICT -

Saturday 19 November 1994

We are striking further afield for this trip into the Lake District where we will ramble around Windermere and we also hope to visit the Freshwater Biological Association's headquarters to observe their work. Picnic and warm clothes essential. The bus will leave the staff car park at 9 am, returning at 6 pm. Over 8's invited.

THE CHRISTMAS PARTY -

Friday 9 December 1994

No year in the Junior's calendar would be complete without the annual bun-fight at Christmas. The picnic area in the Tropical House survived our onslaught last year so we plan to hold the party there again this year. As usual our hamburger/hot dog supper will be disrupted with a variety of party games and music. Over 8's welcome to join in. Juniors should arrive at the MAIN NORTH GATE ENTRANCE for 7.15 pm and parents may collect them from there or from the party area (bring a torch) at 10 pm

THE CONTACT SESSION -

Saturday 21 January 1995

Juniors should assemble outside the Oakfield before being taken to meet some of our friendlier residents at the zoo. We will walk from the Oakfield at 2.15 pm to the indoor picnic area, and older Juniors may drift away from there after 3.15 pm, with the rest being accompanied back to the Oakfield for a 4 pm collection.

WATERFOWL WATCHING AT MARTIN MERE -

Saturday 25 February 1995

Hardy Juniors should take this opportunity

to see the wealth of visiting waterfowl at the Wildfowl and Wetlands Trust at Martin Mere in February. We should see Bewick and Whooper swans, Pink-footed geese, all sorts of ducks including Teal and Wigeon, Shelduck, Pintails, Tufted Duck and a host of waders and other waterfowl. If we are lucky we may even spot a day-flying Barn owl and perhaps even a Merlin or Harrier. The bus will leave the staff car park at 10.30 am returning at 4.30pm. There are plenty of "hides" at Martin Mere, but you will need warm clothes and a picnic. Over 8's are invited.

TRACKS AND SIGNS -

Saturday 25 March 1995

March is selected for the ever-popular day when Juniors are let loose in some of the enclosures to find footprints and take plaster casts, because we can almost guarantee muddy conditions! We will meet outside the Oakfield at 11 am and will meet back there at 4 pm. Over 8's are invited to join the fun, and everyone should bring a picnic and wear old clothes and wellies.

FARM WORLD, ERDIGG -

Saturday 29 April 1995

An opportunity for Juniors to meet some of to-day's domestic farm animals at this working farm near Wrexham. You will be able to feed the lambs and learn about milking and farming techniques. The bus will leave the staff car park at 11 am, returning at 4 pm and over 8's are invited, bringing wellies and a picnic.

SHUGBOROUGH PARK -

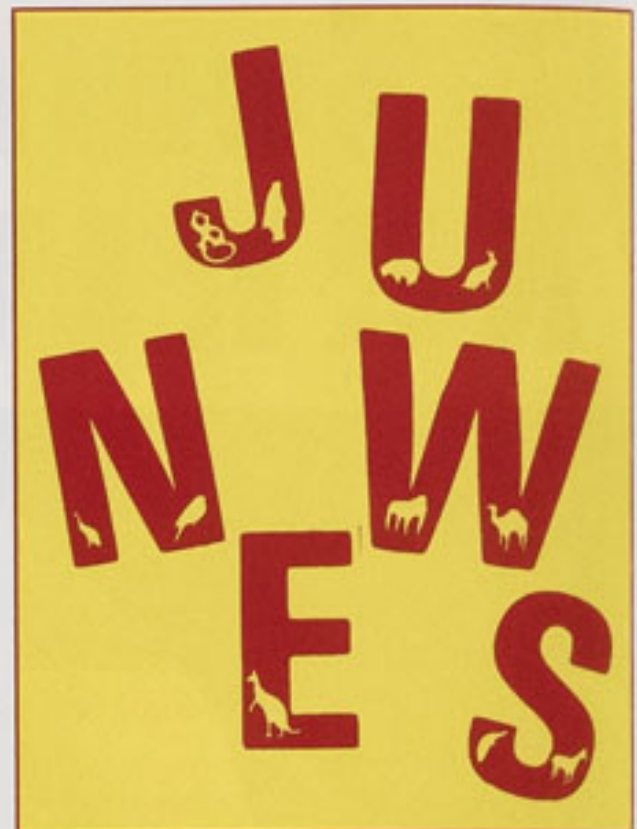
Saturday 20 May 1995

Everyone had a marvelous time when we last visited Shugborough, the home of Lord Litchfield in Stafford. The Home Farm is a centre for rare domestic breeds such as Longhorn cattle, Bagot goats, Leicester Longwool sheep, Tamworth and Gloucester Old Spot pigs. We will also see demonstrations of traditional farm crafts including butter and cheese making, farmhouse cookery and spinning. The Shire horses can be seen at work and there is a Noah's Ark touch area for smaller animals. The restored corn mill and waterwheel complete the picture of a working estate farm of the pre-Victorian era. We also plan to visit Shugborough House in all its Victorian splendour. The bus will leave the staff car park at 9 am and return at 5.30 pm. Over 8's invited, and everyone should bring a picnic.

HILBRE ISLAND -

Date in June to be finalised

Watch this space for the date in June when we will visit Hilbre Island to see the seals and to explore the rockpools. We will walk over the Hilbre from West Kirby as the tide goes out and we will return before the tide comes in which should allow us a great day of exploring around



the island. Over 8's invited.

DAY WITH A KEEPER -

Wednesday 26 July 1995

One of the highlights of the year for Juniors over 12 years is the day when you can come to the zoo to help a keeper for the day. It is a very strenuous day, but well worth the effort! Juniors must book and should bring along a picnic lunch and wear wellies. Meet outside the Oakfield at 10.30 am to be allocated to a section, and return there for 4 pm to be collected by parents.

JUNIOR MEMBERS' BARBEQUE AND CREEPIE CRAWLIE EVENING -

Friday 18 August 1995

We will be keeping our fingers crossed for a good evening for our Juniors' barbeque. For those of you who want to meet some creepy crawlies, we will have Senior Member Alan Marrow along to introduce you to some of his favourite animals who share his home (most of them have eight legs!). Those not so keen on spiders should not be put off coming, as there is lots of space to spread out on the Jubilee Lawn!

THE FOLLIES - HAWKSTONE PARK -

Saturday 23 September 1995

This will be a new trip for Juniors when we travel into the wilds of Shropshire to discover the surprises of the follies and caves on the nature ramble at Hawkstone Park. The bus will leave the staff car park at 11.00 am, returning at 4.30 pm. Over 8's are invited to bring a picnic, and be prepared for being outdoors.

PLEASE NOTE

Bookings must be made for all events. Please ring Penny at the zoo not more than two weeks before the event you would like to attend. Places are allocated on a first-come, first-served basis, and may be limited. For those trips which involve either a bus trip or provision of food or materials, a charge will be made to cover costs - but we will keep this as low as possible. The list is provisional and in exceptional circumstances we may have to alter the dates and times of some of the trips. You will not be informed of such changes individually - so please read the Junior pages in the magazine each quarter, to keep up to date with Junior news.

Penny Rudd (Mrs) Junior Members' Club Leader.

OUR JUNIORS ARE HARDY TYPES!



Above: It was a wet day at the Chestnut Centre in May!
 Below: And we froze in Anglesey in June - on the boat trip to Puffin Island!
 But at least it was warm in the Tropical House at the Butterfly Palace on Anglesey.



OLDER JUNIORS



One of the most popular activities with older juniors is the day spent helping a keeper. Wading across to Lemur Island to help feed the Ring-tails was a particular treat!

Arrivals ○ Births ○ and Hatchings ○

MAY, JUNE & JULY 1994

MAMMALS

Rodrigue's Fruit Bat	<i>Pteropus rodricensis</i>	0.0.2	Born
Seba's Short-tailed Bat	<i>Carollia perspicillata</i>	0.0.1	Born
Red-ruffed Lemur	<i>Varecia variegata rubra</i>	0.0.1	Born
Bornean Orang Utan	<i>Pongo pygmaeus pygmaeus</i>	0.1.0	Born
Asiatic Lion	<i>Panthera leo persica</i>	0.0.3	Born
Cheetah	<i>Acinonyx jubatus</i>	0.3.0	Arrived
Californian Sealion	<i>Zalophus californianus</i>	0.0.1	Born
Persian Onager	<i>Equus hemionus onager</i>	0.1.1	Born
Bactrian Camel	<i>Camelus bactrianus</i>	1.0.0	Born
Red Lechwe	<i>Kobus leche</i>	1.0.4	Born
Nilgai	<i>Boselaphus tragocamelus</i>	1.1.0	Born
Reindeer	<i>Rangifer tarandus</i>	0.2.0	Born
Arabian Gazelle	<i>Gazella gazella arabica</i>	2.2.1	Born
Axis Deer	<i>Cervus axis</i>	0.1.0	Born
Bison	<i>Bison bison</i>	0.1.0	Born
Scimitar-horned Oryx	<i>Oryx dammah</i>	1.0.0	Arrived
Sitatunga	<i>Tragelaphus spekei</i>	3.3.0	Arrived
Sitatunga	<i>Tragelaphus spekei</i>	0.0.1	Born
Pudu	<i>Pudu pudu</i>	0.1.0	Arrived
Blackbuck	<i>Antelope cervicapra</i>	1.3.1	Born

BIRDS

Humboldt's Penguin	<i>Spheniscus humboldti</i>	0.0.1	Hatched
Waldrapp Ibis	<i>Geronticus eremita</i>	0.0.6	Hatched
Chilean Flamingo	<i>Phoenicopterus chilensis</i>	0.0.1	Hatched
Caribbean Flamingo	<i>Phoenicopterus ruber ruber</i>	0.0.4	Hatched
Red-breasted Goose	<i>Branta ruficollis</i>	0.0.1	Hatched
Shelduck	<i>Tadorna tadorna</i>	0.0.3	Hatched
Ruddy Duck	<i>Oxyura jamaicensis</i>	0.0.1	Hatched
Mandarin Ducks	<i>Aix galericulata</i>	0.0.4	Hatched
Laysan Teal	<i>Anas laysanensis</i>	0.0.2	Hatched
Marbled Teal	<i>Marmoronetta angustirostris</i>	0.0.4	Hatched
Carolina Duck	<i>Aix sponsa</i>	0.0.1	Hatched
Rosy-billed Pochards	<i>Netta peposaca</i>	0.0.2	Hatched
Hooded Merganser	<i>Mergus cucullatus</i>	0.0.1	Hatched
Smew	<i>Mergus albellus</i>	0.0.3	Hatched
White-winged Wood Duck	<i>Cairina scutulata</i>	0.0.5	Hatched
Avocet	<i>Recurvirostra avosetta</i>	3.3	Received
Secretary Bird	<i>Sagittarius serpentarius</i>	1.0	Received
Red-crowned Cranes	<i>Grus japonensis</i>	0.0.2	Hatched
Laughing Dove	<i>Streptopelia senegalensis</i>	0.0.2	Hatched
Californian Quail	<i>Lophortyx californica</i>	0.0.6	Hatched
Himalayan Monal	<i>Lophophorus impeyanus</i>	0.0.10	Hatched
Bare-faced Curassow	<i>Crax fasciolata</i>	0.0.4	Hatched
Satyr Tragopan	<i>Tragopan satyra</i>	0.0.2	Hatched
Temminck's Tragopan	<i>Tragopan temminckii</i>	0.0.10	Hatched
Edwards' Pheasant	<i>Lophura edwardsi</i>	0.0.14	Hatched
Golden Pheasant	<i>Chrysolophus pictus</i>	0.0.4	Hatched
Palawan Peacock Pheasant	<i>Polyplectron emphanum</i>	0.0.1	Hatched
Black-cheeked Lovebird	<i>Agapornis nigrigenis</i>	0.0.4	Received
Yellow-faced Parrotlet	<i>Forpus xanthops</i>	1.1	Received
Splendid Parakeet	<i>Neophema splendida</i>	1.0	Received
Derbyan Parakeet	<i>Psittacula derbiana</i>	0.0.3	Hatched
Blue & Yellow Macaw	<i>Ara ararauna</i>	0.0.2	Hatched
Greater Vasa Parrot	<i>Coracopsis vasa</i>	0.0	Hatched
Slender-billed Conure	<i>Enicognathus leptorhynchus</i>	0.0.1	Hatched
Yellow-backed Chattering Lory	<i>Lorius garrulus flavopalliatu</i>	0.0.2	Hatched
Stella's Lorikeet	<i>Chamosyna papou</i>	0.0.2	Hatched
Splendid Parakeet	<i>Neophema splendida</i>	0.0.5	Hatched
Blue-eyed Cockatoo	<i>Cacatua ophthalmica</i>	0.0.1	Hatched
Black-cheeked Lovebird	<i>Agapornis nigrigenis</i>	0.0.2	Arrived

Cuban Amazon	<i>Amazona leucocephala</i>	0.0.3	Hatched
Green-cheeked Amazon	<i>Amazona viridigenalis</i>	0.0.4	Hatched
Red-fronted Macaw	<i>Ara rubrogenys</i>	0.0.1	Hatched
Schalow's Tauraco	<i>Tauraco schalowi</i>	1.0	Received
Schalow's Tauraco	<i>auraco schalowi</i>	0.0.2	Hatched
White-faced Scops Owl	<i>Otus leucotis</i>	0.0.3	Hatched
Snowy Owl	<i>Nyctea scandiaca</i>	0.0.1	Hatched
Spectacled Owl	<i>Pulsatrix perspicillata</i>	0.0.1	Received
Grey Hornbill	<i>Tockus nasutus epirhinus</i>	0.0.3	Hatched
Trumpeter Hornbill	<i>Bycanistes buccinator</i>	0.0.2	Hatched
Kookaburras	<i>Dacelo noaeguineae</i>	0.0.2	Hatched
Tawny Frogmouth	<i>Podargus strigoides</i>	0.0.1	Hatched
Channel-billed Toucan	<i>Ramphastos vitellinus</i>	0.0.2	Hatched
Lilac-breasted Roller	<i>Coracias caudata</i>	1.1.0	Received
Java Sparrow	<i>Padda oryzivora</i>	0.0.9	Hatched
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	0.0.1	Hatched
Orange-headed Ground Thrush	<i>Zoothera citrina</i>	0.0.1	Hatched
Gouldian Finch	<i>Chloebia gouldiae</i>	0.0	Received
Mexican House Finch	<i>Carpodacus mexicanus</i>	0.0.3	Hatched
Chinese Bulbul	<i>Pycnonotus sinensis</i>	0.0.1	Hatched
Pekin Robin	<i>Leiothrix lutea</i>	0.0.1	Hatched
Fairy Bluebirds	<i>Irena puella</i>	0.0.1	Hatched
Silver-eared Mesia	<i>Leiothrix argentauri</i>	0.0.1	Hatched
Orange-cheeked Waxbill	<i>Estrilda melpoda</i>	0.0.3	Hatched
Azure-winged Magpie	<i>Cyanopica cyana</i>	0.0.1	Hatched
Rothschild's Mynah	<i>Leucopsar rothschildi</i>	0.0.4	Hatched
Superb Starling	<i>Spreo superbus</i>	0.0.1	Hatched
Purple Glossy Starling	<i>Lamprotornis purpureus</i>	0.0.2	Hatched
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	0.0.1	Hatched

REPTILES

Madagascan Tree Boa	<i>Sanzinia madagascariensis</i>		
Prehensile-tailed Skink	<i>Corucia zebrata</i>	0.0.1	Hatched
Sunbeam Snake	<i>Xenopeltis unicolor</i>	0.0.6	Hatched
Plumed Basilisk	<i>Basiliscus plumifrons</i>	0.0.27	Hatched
Leopard Gecko	<i>Eublepharis macularius</i>	0.0.74	Hatched
Boa Constrictor	<i>Constrictor constrictor</i>	0.1.0	Received

AMPHIBIANS

Giant Amazonian Tree Frog	<i>Hyla boans</i>	0.0.6	Received
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INVERTEBRATES

Sea Hare	<i>Aplysia dactylomela</i>	10	Received
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FISH

Lake Victoria Cichlid	<i>Haplochromis pyrrhocephalus</i>	391	Bred
Lake Victoria Cichlid	<i>Haplochromis rionianus</i>	32	Bred
Lake Victoria Cichlid	<i>Haplochromis argens</i>	162	Bred
Lake Victoria Cichlid	<i>Haplochromis obliquidens</i>	75	Bred
Lake Victoria Cichlid	<i>Haplochromis sauvagei</i>	25	Bred
Lake Victoria Cichlid	<i>Haplochromis Velvet Black</i>	110	Bred
Lake Victoria Cichlid	<i>Haplochromis Velvet Black Blotched</i>	167	Bred
Lake Victoria Cichlid	<i>Tilapia guinisana</i>	150	Bred
Yellow Tang	<i>Zebrasoma flavescens</i>	6	Received
Yellow Seahorse	<i>Hippocampus sp.</i>	6	Received
Dwarf Lionfish	<i>Dendrochirus zebra</i>	1	Received
Radiata Scorpion Fish	<i>Pterois radiata</i>	3	Received
Killifish	<i>Nothobranchius korthausae</i>	250	Bred
Emperor Tetra	<i>Nematobrycom palmeri</i>	48	Received
Cardinal Tetra	<i>Paracheirodon axelrodi</i>	53	Received

HOMO SAPIENS

To Janet (Oakfield Restaurant Chef) and Mark (Rhino Keeper) Cleave:
A son, James, born on 15th August.
Congratulations from all zoo staff.