

CHEZ NOUS



CHESTER ZOO NEWS

SPRING 1986



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Editorial

We are rather later than usual with the Spring Edition of the *Zoo News* this year, but that suits the season, with the spring delaying its arrival by freezing us all out for the month of February this year! Not a good sign, with Easter being so early this year (visitor-wise, I mean).

Perhaps one good result of the delay in issuing this edition is that people have kept saying "May I just add a few words to the next *Zoo News*..." and, as a result, we are somewhat action-packed this time!

Roger Wilkinson has been pleased to be in a position to outline the breeding successes of the Bird Section last year, which no doubt has encouraged everyone to look forward to this season with added enthusiasm. Our Head Gardener, Mr. Walter Worth, retired at the end of December, and he has written an article about the trees to be enjoyed in the future in the Zoo. Another retirement is featured this month, and that is Fred Williams, who has spent the last 40 years helping to build up the Zoo. A

colleague of his once said that if they had to be stranded on a desert island with anyone, they would choose Fred, as somehow or other he would manage to have a four-star hotel built within the week. Praise indeed!

Maureen Allsopp's poetic nature is directed towards our much appreciated Adopters, who support us so well and a report on "Adopters' Day" can be read in this issue, along with membership news and reviews.

Having looked back, we must now look forward to what we really hope will be an extremely good year for the Zoo, both zoologically and in the number of visitors we manage to attract. Recent publicity has brought the Zoo to the notice of many more people who now will be better informed about the problems of Zoos in general and, hopefully, this will prompt them to visit and support their local Zoo, which, after all, still maintains its place as one of the major attractions in the North of England.

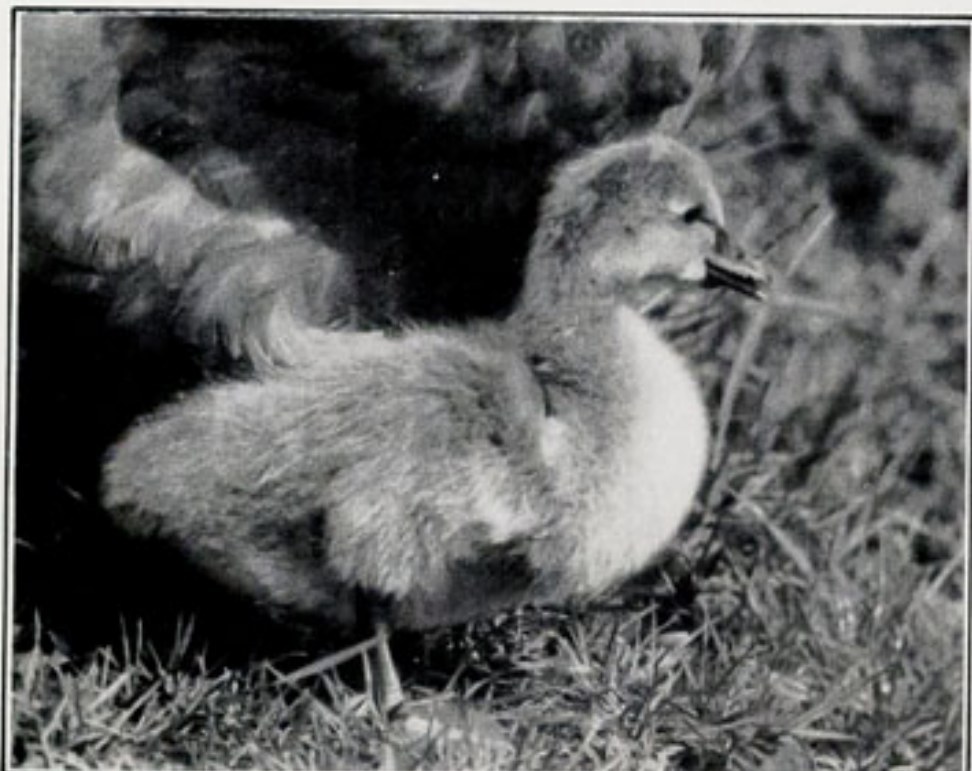
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Hawk-headed Parrot

Courtesy of K. W. Green, A.R.P.S.



Black Swan Cygnet

Courtesy of K. W. Green, A.R.P.S.

Editorial Board

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 Dr. Michael Brambell *Director*

Front Cover: Kookaburra Fledgling *Courtesy of K. W. Green, A.R.P.S.*

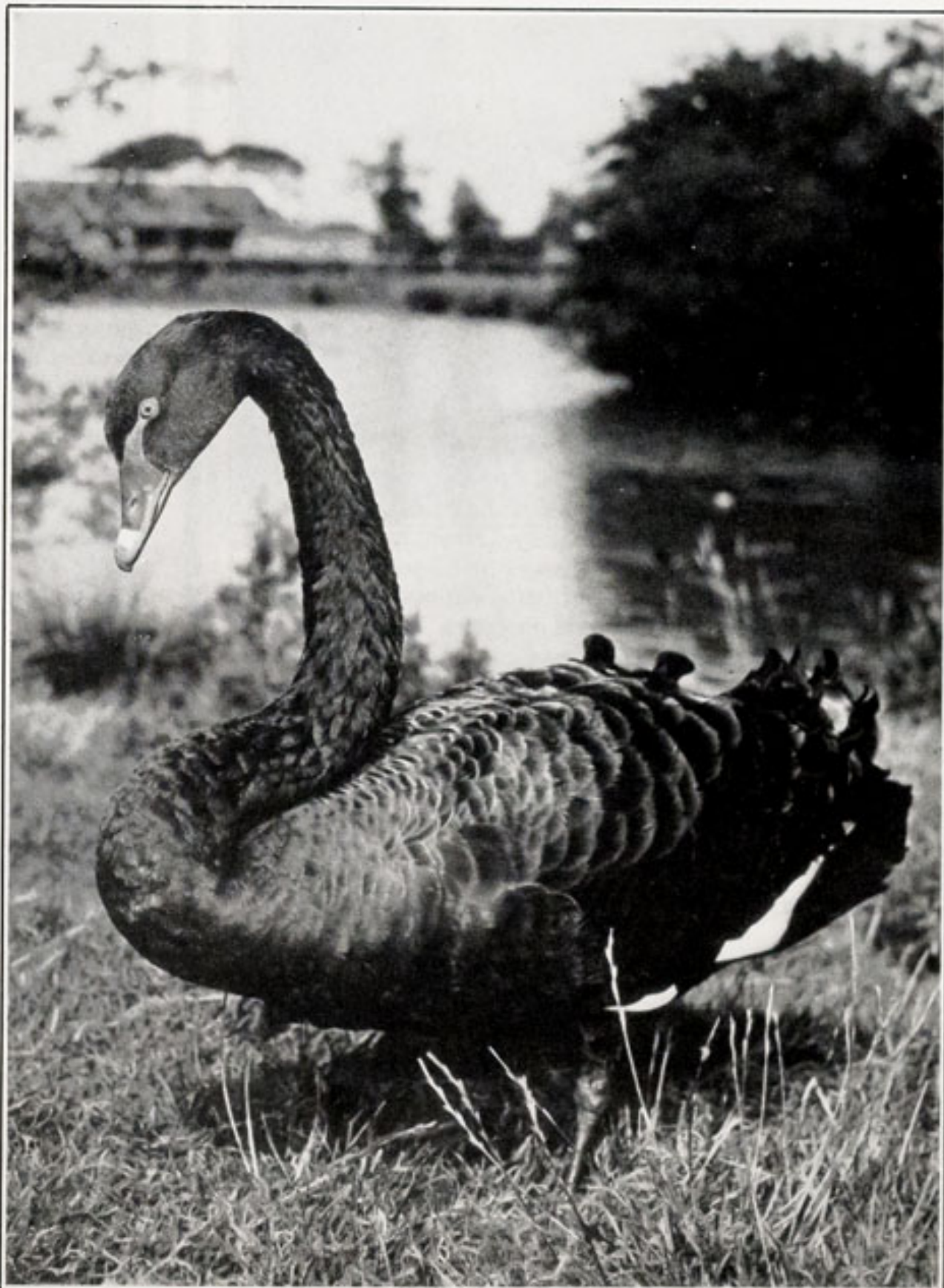
Birds—A Review of the Breeding Season 1985

Whereas the summer of 1984 was exceptionally dry and sunny, that of 1985 never really arrived. Indeed, the spring and summer months were cold and exceptionally wet. This affected not only our visitor attendances but also our breeding season, especially with respect to some species of paddock birds and parrakeets.

The first birds to lay (in fact, eggs were laid in late December) were the Cereopsis Geese (*Cereopsis novaehollandiae*). As usual, the first clutch of eggs was removed for artificial incubation, but, as has happened all too frequently, none were reared. Only one duckling has been reared from this pair in five seasons; we have tried both artificial incubation and parent incubation, but all but one duckling have died either prior to hatching or as weak ducklings after hatching. It would appear that our only option may be to try different pairings—the problem is an understandable reluctance of other parties to enter into exchanges with either of this problem pair.

The Cereopsis Goose's antipodean relative, the Black Swan (*Cygnus atratus*) also lays its first clutch in late winter/early spring. As is our normal practice, the first clutch was removed and two cygnets were successfully reared. The parents did even better in rearing six cygnets from their second clutch and, later in the year, we were able to send five immature Swans to start a new colony at Whipsnade Zoo. Our recently-acquired Red-breasted Geese (*Branta ruficollis*) and Hawaiian Geese (*Branta sandvicensis*) were probably still too young to lay, and other species may have been inhibited by the extremely cold spring weather. However, we were very successful with Laysan Teal (*Anas platyrhynchos laysanensis*) and Mandarin Ducks (*Aix galericulata*), two species of waterfowl which are rare in their native habitats but are now both well established in captivity. Eleven Laysan Teal and 24 Mandarin Ducks were reared, as well as good numbers of Carolina Ducks (*Aix sponsa*), Rosy-billed Pochard (*Netta peposaca*) and Chiloe Wigeon (*Anas sibilatrix*).

Ratites were far less successful than in 1984. Owing to the foul cold weather, the earliest-laid Ostrich eggs were removed for artificial incubation. Five Ostriches (*Struthio camelus*) hatched, but only two survived. Both of these had very slow growth rates compared to those of the previous year. Sadly, one died of impaction following its swallowing of long blades of grass, and the other was sent to Haigh Hall Country Park when three months old. After trying our female Emu (*Dromaius novaehollandiae*) with two different males, we still await any signs of breeding activity, and I am beginning to wonder whether in fact we do have a true pair. Ratites, other than Ostriches, can be quite difficult to sex, and do not always follow the text-book patterns. We obtained two young Rheas (*Rhea americana*), considered females, from Colwyn Bay Zoo in late 1984. These were placed with our proven male and both coloured up very well to such an extent that one of our staff thought them both to be males. This was, happily, proved not to be the case



Black Swan

Courtesy of James Whitworth

when eggs were discovered in their paddock. Although normally we would allow the male to incubate these eggs (in Rhea—as in Emu—the males incubate and care for the chicks), because these birds shared a paddock with the Guanacos (*Lama guanicoe*) we decided to play safe by removing the eggs for artificial incubation, and nine chicks were successfully reared. This number was only eclipsed by the Rhea's diminutive near-relative, the Chilean Tinamou (*Nothoprocta perdicaria*), whose prolificity resulted in some 36 chicks being hatched, of which the majority were reared to maturity.



Rhea Chick

Staying with the paddock birds, we await successes with cranes and flamingos. For the first time, our Demoiselle Cranes (*Anthropoides virgo*) laid two eggs which, however, proved infertile. Sadly, the male died only a few weeks ago and, although we are searching desperately, it seems increasingly likely that our female will remain unpaired this season. The Chilean (*Phoenicopterus chilensis*) and Caribbean Flamingos (*Phoenicopterus ruber ruber*) built nests, and several pairs were frequently observed together displaying. Copulations were frequently observed, but no eggs resulted.

In the Big Flight, backing on to the Ape House, Night Herons (*Nycticorax nycticorax*), Sacred Ibis (*Theskiornis aethiopica*), Straw-necked Ibis (*Theskiornis spinicollis*) and Little Egret (*Egretta garzetta*) nested. Our most notable success was in the rearing of a Little Egret—for the first time in Chester, I think. Sacred Ibis also successfully reared chicks, but the Night Heron's chicks disappeared shortly after hatching, and the Straw-necked Ibis's eggs failed to hatch.

Our Penguins (*Spheniscus humboldti*) are not good parents. Whilst perhaps six pairs went to nest, only one

chick was reared to maturity. You may well have noticed a number of new wooden nest-boxes in the Penguin Enclosure. Whilst not as "natural" as the nesting burrows, the birds have previously used these boxes, and this should allow inspection and greater control over breeding activity this coming year. One major problem with the old nest burrows was the difficulty in actually recording what was happening in the breeding season; this year we intend to remove eggs shortly before hatching, or remove recently-hatched chicks and hand-rear these.



Perhaps our most significant success in 1985 was the hand-rearing of a female Andean Condor (*Vultur gryphus*). Our parent birds did extremely well early in the season in incubating and hatching a young male Condor. Sadly, this disappeared a week after hatching (probably eaten by one of the parents—the male smashed both eggs the previous year), and we resolved to remove the next egg for artificial incubation. After two months in the incubator under the watchful eye of Senior Keeper Nick Manning, we were rewarded with the hatching of a female Condor (the Andean Condors can be sexed on hatching, as the males already have the fleshy comb characteristic of their sex). The hard work then began. For a period of three months, Andrew Woolham shared his bedroom with the young Condor, so that he was able to give it day and night attention. We had



Kookaburras (*Dacelo novaeguineae*) were reared by our youngest inexperienced pair, but the older pair again failed. Two San Blas Jays (*Cissilopha sanblasiana*) were fledged, of which one later succumbed to gape worms. Birds of the Crow and Starling family are particularly susceptible to this parasite, which is ubiquitous in populations of wild British Starlings and Crows.

Courtesy of K. W. Green, A.R.P.S.

The Spectacled Owls (*Pulsatrix perspicillata*) laid fertile eggs again this year but, unfortunately, the clutch was deserted part way through incubation. We placed the chilled eggs in an incubator and, although one very weak chick managed to pip the shell, it died within hours of being helped out of the egg. Snowy Owls (*Nyctea scandiaca*) reared two chicks for the second year running, and the new pair of European Eagle Owls (*Bubo bubo*) also produced two strong, healthy youngsters.



one very worrying period when the Condor rapidly lost weight, following an infection possibly connected as a result of switching from its rat diet (at one stage it was taking the entrails and best leg meat from 24 rats a day) to a rabbit diet. Had it not been for Andrew's attention and enthusiasm, we would surely have lost the Condor in this very crucial period. Happily, the Condor is now back in the Zoo. We are not surprised that, in the wild, Condors only breed in alternate years for, at six months old, our very large chick still requires hand-feeding.



We were both pleased and disappointed with our Great Indian Hornbills (*Buceros bicornis*). Pleased because, after only being together a matter of months, this pair went to nest and laid two eggs. Disappointed because, after artificially hatching the abandoned eggs following the female breaking out of her nest chamber, we were unsuccessful in hand-rearing the two chicks.

Nick Manning put hours of work into hand-rearing these youngsters and we were all sad with him when, despite all his efforts, the chicks failed to survive.

Considering the birds in the Bird House and adjacent Arcade, we were successful in rearing Spree Starlings (*Spreo superbus*) from two different pairs, and also had youngsters from the Crowned Plovers (*Vanellus coronatus*) occupying the ground space of the same aviaries. Our Blacksmith's Plovers (*Vanellus armatus*), which we have had since 1979, responded to their move to the central inside aviary of the Bird House by nesting for the first time. Perhaps the running water stimulated them. Whatever the reason, we hatched a total of seven young, of which three were successfully reared. Palawan Peacock Pheasants (*Polyplectron emphanum*) and Grey Peacock Pheasants (*Polyplectron bicalcaratum*) were also bred; removing the first clutches for artificial incubation and leaving the later ones for the parents to rear. Two



Blacksmith's Plover

Courtesy of K. W. Green, A.R.P.S.

Red-billed Magpies (*Urocissa erythrorhyncha occipitalis*) and Red-headed Laughing Thrushes (*Garrulax erythrocephalus*) both nested, but neither had chicks. Coleto Mynahs (*Sarcops calvus*) and Common Mynahs (*Acridotheres tristis*) were hatched, but last year neither species managed to rear their young to maturity. The Crested Bronzewing Pigeons (*Ochyphaps lophotes*), however, were exceptionally prolific, one pair rearing seven chicks in a succession of clutches, the last of which were hatched on Christmas Day. Our Tropical House pair of Crested Bronzewings fledged a single chick before the death of that breeding female in February. It would appear from lack of subsequent breedings that the remaining three birds in the free flight Tropics are all males.

We were rather disappointed when our Pallas's Sandgrouse (*Syrrhaptes paradoxus*) after moulting out in quarantine, proved to be four cocks and only one hen. However, we were delighted when, only just over two weeks later, an egg was discovered on the floor of their aviary. Several clutches of eggs were laid by this female, but she never showed any signs of incubation. The eggs were therefore removed and artificially incubated. Four chicks hatched, of which two were successfully reared; these have now moulted into their adult plumage and prove to be a cock and a hen. We have been unable to find any reports of Pallas's Sandgrouse having been bred previously in the United Kingdom and believe it may be a first for Chester Zoo.

The Finch Flight Aviary behind the Oakfield holds a mixed collection of birds, including Chilean Tinamous and Parrakeets, as well as Finches and Waxbills. The Mexican House Finch (*Carpodacus mexicanus*) and Chilean Tinamous were embarrassingly successful—to the extent that we have had difficulties in finding homes for all the progeny; 26 Tinamous and 19 House Finches were reared. The Splendid Parrakeets (*Neophema splendida*) housed in the same aviary reared eight youngsters in two broods.

Opposite the Finch Flight is a row of aviaries housing mainly Parrot-like birds. The Yellow-billed Amazons (*Amazona collaria*) hatched, but failed to rear to chicks, and we hope to attempt hand-rearing this species in the coming breeding season. The Slender-billed Parrakeets (*Enicognathus leptorhynchus*) were more successful in rearing four of the total of six chicks hatched. Other notable breedings of parrot-like birds included two Red-sided Eclectus (*Eclectus roratus goodsoni*), two Derbyan Parrakeets (*Psittacula derbiana*), eight Maroon-tailed Conures (*Pyrrhura melanura*), four Yellow-faced Parrotlets (*Forpus xanthops*) and 15 Lesser Patagonian Conures (*Cyanoliseus patagonus*). The latter included one yellow variant, which we were able to exchange for two female Hawk-headed Parrots (*Deropterus accipitrinas*). Our present pair of Hawk-headed Parrots had proved on surgical sexing to be two males. Happily, we now have two true pairs—all four birds have been surgically sexed. The Barraband Parrakeets (*Polytelis swainsoni*) and Crimson-winged Parrakeets (*Aprosmictus erythraea*) hatched chicks, but neither species managed to rear these in the cold.



Lesser Vasa Parrot

Saving the best to the last, we had a United Kingdom first breeding, in rearing two Lesser Vasa Parrots (*Corocopsis nigra*). These have rapidly become one of

our favourite Parrots; although sombre in colour, this is more than made up for by their engaging behaviour and most un-Parrot-like musical songs. Our other main joy was in the hand-rearing of two Blue-eyed Cockatoos (*Cacatua ophthalmica*). Our Blue-eyed hatched, but failed to rear a single youngster in 1984, and the first clutch of 1985 disappeared before hatching. We therefore decided to remove their second clutch for artificial incubation, and were thrilled when both eggs hatched successfully. Both chicks were hand-reared by Paul and Anne Morris, and became television superstars following their theft and subsequent recovery early this year. Long live the Cockatoos "Gannet" and "Booby".



Hand-reared Blue-eyed Cockatoos with Anne and Jay Morris

Turning our attention to the birds in the free flight of the Tropical House, we were successful in rearing a Fairy Bluebird (*Irena puella*), six Red-cowled Cardinals (*Paroria dominicana*), and a Purple Glossy Starling (*Lamprolornis purpureus*). This very natural area gives the false impression of being ideal for breeding birds. Sadly, the naturalisation of the area includes natural hazards, both biotic—in terms of interference and predation by other bird species—and physical, especially the large number of water areas which appear particularly attractive to fledgling birds. Thus both Long-tailed Glossy Starlings (*Lamprolornis caudatus*) and Red-backed Mousebirds (*Colius castanotus*) fledged young, but these were not reared to independence. Other species nesting in the free-flight included Wagler's Oropendola (*Psarocolius wagleri*), Baya Weavers (*Ploceus phillipinus*) and Red-eared Bulbuls (*Pycnonotus jocosus*). Our Fire-tufted Barbets (*Psilopogon pyrolophus*), which won us a United Kingdom first breeding in 1984, hatched but failed to rear a single chick this year. This pair laid again in late 1985, from which a clutch of two chicks were successfully fledged in early 1986. It is very satisfying to have been able to repeat our earlier successes with this species—far too often first breedings are "one-offs", which are subsequently not consolidated.

I hope that this review, which has mentioned most but not all of the birds breeding in 1985, has succeeded in putting some meat on the bare bones of the statistics which appear in the Annual Report. Whilst we had our fair share of unsuccessful nesting attempts, the extremely hard work of our Bird Keepers (and the Animal Breeding Centre staff, who were constantly pestered for live food) resulted in over 200 birds of more than 40 species being successfully reared in 1985. Although our most notable event may have been the first United Kingdom breeding of the Lesser Vasa Parrot, 1985 will perhaps be best remembered for the hand-rearing of our first Andean Condor.

Courtesy of K. W. Green, A.R.P.S.

Courtesy of Chester Chronicle

"Adopta" Day— 18th February, 1986

It was a bitterly cold February morning as over 500 adopters, families and friends crowded into the Jubilee Cafeteria for a very welcome cup of hot coffee at the start of our 1986 "Adopta" Day.

Following the Director's speech—during which we learned that some of you had journeyed from as far afield as Scotland and Cumbria to be with us—those of you who booked in for the first of the three showings of Peter Wait's slides (Peter is our Senior Curator) set off for a brisk walk to the Lecture Hall. Throughout the day, the children were kept busy scurrying about the Zoo, seeking the answers to the quiz devised for them by our Education Department. Congratulations to the three prize-winners—Robert Nivison (5–7 age group); Yvonne Henderson (8–10 age group); and Adrian Dunnett (over 11 age group). Thank you, Education, for marking all the entries.

As a result of your endeavours, "Adopta" Day brought in a lot of new adoptions, and these, plus the March renewals currently pouring in, have given us a really bumper start to the year—target to beat is last year's £20,000! Our Camels, who started 1986 with only one adopter, received some very welcome publicity from the press, resulting in several very kind people buying shares in them. These press reports were spotted by Tony, Secretary of the Wednesday Club at Ford Motor Company. He and some of his colleagues had adopted a Camel and now decided that they would like to renew it. He felt that it would greatly assist our cause—and his collecting box—if he could produce a letter from the Zoo that really tugged at the heart-strings of those who were about to be asked to dip into their pockets! I thought it would be fun to reply in verse—eat your heart out, Pam Ayres!

A CAMEL'S LAMENT

*I'm a very hungry Camel, who lives at Chester Zoo
And if my tummy's rumbling, it's partly due to you.
Last year, the good old Wednesday Club contributed to
my feed
But this year, I'm afraid to say, they've paid me little
heed!
I hope you'll re-adopt me and put your names back on
my plaque,
'Cos then I'll get my vitamins and other things I lack.
Please save up all your pennies, and pass them on to
Tony—
It really is a crying shame for me to stay so bony!
So, come on lads and lasses! I would not wish to grovel,
But three square meals a day for me would really be
quite novel.
For just a small investment from everyone at Ford
I could buy some super grub, and live just like a lord!
So get yourselves a little box, with tightly-fitting lid,
'Cos—if you want the whole of me—it will cost 500 quid.
But if that sounds a little much, and you haven't it to
spare,
For a much more modest sum of cash, you can have a
share.*



*Now as well as all your money, I want some tender
loving care,
Because of all the visitors at the Zoo I ain't getting my
fair share!
So come on all Ford workers—I know you'll turn up
trumps,
And save this lonely Camel, who's really got "the hump"!*

I'm pleased to say that we got our adoption renewal, plus a very happy Camel, who is now putting on weight and looking forward to lots of visitors during the summer!



Robert Nelson on Adopters' Day meets his Red-kneed Tarantula

One of our recent adoptions with a novel twist is from the opticians, Dolland and Aitchison, who have adopted our Spectacled Owls. Are there any solicitors out there ("wise old owls" all of them, I'm sure) who would like to adopt our Barn Owls? If you know of any, do let me know, and I'll try my hand at another verse!

Finally, a very big thank you for all the lovely letters you have written to me over the past year. So, until we meet again, keep up the good work and if you come up with any brilliant ideas, give me a ring—it's worth a try!

Maureen Allsopp
Animal Adoption Secretary

A Review of Trees Planted in Recent Years

AND A MENTION OF SOME OF THE OLDER ONES

In this article, I would like to describe the trees which have been planted for the younger generation to enjoy in the future, along with comments about the more mature ones, and also to point out the areas where they are growing. It is hoped that the continuous planting of young trees will compensate for the mature trees which have had to be felled to make way for improvements and because some became dangerous, as well as to provide a greater variety of species.

It is important that wherever a tree is planted it has a good chance of reaching maturity in this position. There is no doubt that trees enhance the beauty of any area which has been developed from an open pasture field. One reason why we see so many Poplars and Willows in the west side of the Zoo is because this area was very much exposed to the prevailing winds from the west, and something was needed to grow quickly to form a wind-break. These trees are now being allowed to continue to grow, as they are a good source of food for some of the animals in the summer, particularly the Giraffes. Willows were planted along the sides of the Waterbus route, in the hope that the roots would prevent erosion. When proved to be too tall, they were polled down to about four feet from the ground. The result now is that we have young growth, where stems are reddish in colour and give added beauty during the winter months, especially when the sun is shining on them.

Before I explain about the young trees, I should like to mention the two mature *Cedrus deodara* growing in front of Oakfield House. They were probably planted at the beginning of this century, and originate from the Indian State of Deodar. Between them is a newly-planted *Cedrus atlantica glauca*, which originates from the Atlas Mountains in North Africa. On the other side of the lawn, in front of the Oakfield, is a fine specimen of *Platanus acerifolia*, commonly named the London Plane. It became known as the London Plane having been planted extensively in London and other cities, because not many trees could survive in the smoke-laden atmosphere of our towns and cities. This tree is unique in that it renews its bark every year during April, thus cleansing itself of a winter's pollution. Also growing in this area was a fine specimen of Italian Cypress (*Cupressus sempervirens*), which was blown down in a gale three years ago. It was 60 feet high and had been in good health.

There is no doubt that this slender and stately species of *Cupressus* was very popular for those avenues lined with trees, especially in Europe. The French town of Montpellier is famous for its avenues of this species, which means "Always Green". Also blown down in the same gale and nearby was a fine specimen of Turkey Oak (*Quercus cerris*) which was probably over 160 years old.

YOUNGER TREES AND WHERE THEY CAN BE SEEN GROWING

A young Common Oak was planted near the London Plane five years ago, and is growing very rapidly. On one side of the lawn, outside Oakfield House, is a large area of Azalea and Rhododendron. Several trees are planted in here, and the oldest was planted 20 years ago—this is the Pocket Handkerchief Tree (*Davidia involucrata*), which only started to produce its white bracts two years ago. These come in May and June, giving the effect of handkerchiefs hanging from the branches. The species originates from China and was discovered by Abbé David.

The Sheraton Cherry (*Prunus serrula*) was planted here two years ago and, when it is mature, it will have a bark resembling polished mahogany. It is for this reason that it is grown, as the flowers are small and inconspicuous. Nearby, and planted last year, is *Robinia pseudoacacia frisia*, which was a present to us from a Shrewsbury school who visited the Zoo in their centenary year. The tree was planted by the pupils to mark the occasion. We hope to see this mature, as it is an outstanding "False Acacia" tree of medium height, bearing rich golden-yellow leaves.

In the large round shrubbery by the entrance to the Jubilee Cafe are four young *Ginkgo biloba*, about five feet high and only just beginning to show above the shrubs. This species was in existence many millions of years ago—a fact known from leaves found in fossilised form. The common name is "Maidenhair Tree". *Biloba* refers to the two-lobed leaves which also produce a lovely autumn tint. Three of these trees were planted in the shrubbery by the service entrance to the Chimp House in 1957, and have now grown to a height of 15 feet. There are several Dawn Redwood (*Metasequoia glyptostroboides*) throughout the Zoo, up to 20 feet in height, which were featured in a previous issue of *Chez Nous*. The first one to be planted here was in 1959.

Two *Abies koreana* were planted two years ago, on the rockery by the side of the Polar Bear Enclosure. Only three feet tall at present, they will grow to a height of about 15 feet. The upper leaves of this conifer are dark



Trees around Oakfield House

Courtesy of K. W. Green, A.R.P.S.

green and silvery-white underneath. We have already seen some bright blue cylindrical cones produced, which are a spectacular sight.

Two years ago, a dangerous Beech tree had to be felled by the entrance going down to the Jubilee Garden and, in its place, a Hornbeam tree (*Carpinus betulus*) was planted. This is a slow-growing tree which should reach a height of 60–70 feet. It produces a hard timber which has many uses, and at one time was used for making yokes for oxen. Lower down this path among the Rhododendrons is a *Eucryphia naymansemsis*, planted in 1974, which had a severe set-back one winter, in January 1982, but has recovered, and has now reached a height of 12 feet—it flowers in August.

On the lawn above the Jubilee Garden are several young trees, planted by Junior Members in February 1985, one of which was *Quercus pendula*, and should develop into a nice form of Weeping Oak. Other trees included Silver Birch, Sweet Chestnut and Common Oaks. By the side of the pond, near the Jubilee Cafe—but as yet hardly noticeable—is a Swamp Cypress (*Taxodium distichum*). This tree originates from North America and from an area in the swampy parts of Florida. It is a deciduous conifer, growing up to 100 feet high. Growing in moist ground, its roots can develop knee-like lumpy roots, which project one or two feet above the ground.

By the side of the Waterbus route and opposite the Lion Enclosure is a width of grass (approximately ten feet) running from the Clock to the Rose Garden. Planted along here are three Evergreen Oaks (*Quercus ilex*). These are slow-growing and it will be a few years before we see them from the path. There are five False Acacia (or Locust Tree) which originate from the eastern side of North America and which grow to a height of 50–60 feet.

There are three islands which the Waterbus goes around, and a variety of trees are planted on them. The Willow, which is polled, is growing at the water's edge. Several Norway Maple were planted in 1958 and produce a lovely autumn tint—they are about 20 feet high. In 1961, a *Pinus monticola* was planted, which is now about 20 feet high and produces cones—it could grow to a height of 100 feet. More recent plantings are two *Abies grandis*—native to North America—which could grow to a height of 200 feet. It is a fast-growing tree, and is planted for its timber in Northern Europe. Two Siberian Crab Apple tree (variety—John Downie) were planted for ornamental effect, the fruit being coloured when ripe, with a lovely autumn tint to the leaves.

Several Whitebeam (*Sorbus aria*) also grow on the island; they are *Lutescens*, with creamy-white leaves and *Majestica*, with grey leaves and scarlet fruit. We are not likely to see either grow much above a height of 30 feet.

In the South American Garden is a Southern Beech (*Nothofagus obliqua*), with a second one growing in the shrubs on the opposite side. These originate from Chile and will grow up to 100 feet in height. Planted in 1980, ours are about 12 feet high. At one corner of the Lion Enclosure, planted by Lord Leverhulme, is a Weeping Copper Beech. This will be viewed from the wide expanse of the Fountain Gardens as it matures. A plaque commemorates the planting. In a pocket at the side of the



Walter Worth at the time of his retirement

Courtesy of George Green, Evening Leader

Zebra Paddock is a Beech Tree, *Fagus sylvatica asplenifolia*—the Cut-leaved Beech. Planted in 1964, the Lime trees, which form an avenue on the east side of the Monkey House, are well on their way to maturity. They are a pleasing sight when the pale green leaves open in the spring, and later on when in their autumn colours. Beyond the Monkey House, on the road to the Nursery, are several Red Oaks (*Quercus coccinea*), which were planted in 1958. Some are now 20 feet high, and produce a lovely autumn tint.

No doubt new genera and specie of tree will go on being planted every year so that future generations of visitors will have much to admire.

Walter Worth, R.H.S.
Retired Head Gardener

Fred Williams and A Brief History of the Zoo

In March 1947, at the age of 22, Fred Williams started work at Chester Zoo, fulfilling his ambition to work with and for animals. On 31st March 1986, he retired from the Zoo which he had helped to build.

In 1947, the Zoo was a very different place than it is today—the war years had taken their toll. In 1946, the new Polar Bear pen had been built with the money willed to the Zoo by Miss Tomkyns-Grafton. The two young Polar Bears which were bought were placed in Fred's care. The Zoo was then offered two Sealions, "Sammy" and "Susie", and, as the Zoo had no accommodation for them, they were placed in the Bear Pits until a pool could be built for them. During this period, Fred never took a day off work. Keeping separate two young and active Polar Bears, two Sealions and two Brown Bears took very careful management in the trapping procedure.

During the post-war years, every member of the Zoo staff was expected to help in all departments of the Zoo. When needed, Fred was called upon to help with the building of the Sealion Pool and to erect the wire around the outdoor Lion Enclosure—this had not been built, due to lack of money and the outbreak of war. This fence then formed the perimeter of the Zoo—the war-time road-blocks used can still be seen at its base.

The Zoo was expanding rapidly; "Meg" the Chimpanzee arrived from West Africa, and a consignment of animals arrived from Canada—these included the parents of our present Wapiti. Many of the animals were kept in their enclosures by chestnut fencing, and the roads were made of cinders—this led to a friend of Fred's mother asking her if her son was a little simple, as he was pulling a four-wheel truck around the Zoo and picking up litter (all litter had to be picked up by hand).

In 1947, the Sealions were put into their new pool, and the highlight of a visit to the Zoo became the show Fred put on every 20 minutes feeding the Sealions.

On 26th February, 1949, Fred married June Mottershead, who looked after the Aquarium (then situated in the cellar of the Oakfield building).



Old Sealion Pool with "Sammy" (1960)

Courtesy of Chester Chronicle



Building the Polar Bear Pool

Courtesy of Daily Herald

The Zoo was expanding; in 1950 the Polar Bears were put into their new enclosure which was partly built using wartime concrete pill-boxes and road-blocks.



Fred outside the new Aquarium 1953

Fred was now concerned about the state of the Aquarium under the Oakfield. It had held many reptile cases—when the new Reptile House was built, these were left empty. Fred and his wife were granted permission to build a new aquarium for the Zoo. With little experience of building and very little money to spend, Fred planned and built the aquarium with the help of his wife and a plasterer. This had to be done at night after Fred had done his day's work in the Zoo. This was a large undertaking to do in his spare time—he even set up aircraft landing-lamps so they could work through the dark winter evenings. The new aquarium was finally opened on 1st October, 1952.

At this time, Fred was also looking after four Penguins that had just arrived. Unfortunately, three of these were

killed by a fox; the fourth formed a very strong attachment to Fred and would follow him around the Zoo—even up stepladders. The B.B.C. made a short film which they used as an interval on the television in the early 1950s of Fred going around the Zoo feeding the animals, with the Penguin following close behind him.

In 1953, the Coronation Hall was erected. It was able to seat 500 people at one sitting—it was built to accommodate the large parties that were coming to the Zoo by railway. All the Zoo staff were expected to help in the cafes at these busy periods, and Fred was no exception.

The Duke of Bedford who, as Marquis of Tavistock, had been a good friend to the Zoo, died, and the then present Duke was disposing of his breeding aviaries of Parakeets. Fred was given the job of going to Woburn Abbey and dismantling the aviaries and resiting them at Chester Zoo.

Fred and his wife decided to emigrate to Australia. In February 1954, they sailed to Tasmania, where they were lucky enough to find work in the Freycinet National Park. After spending a year in Tasmania, they bought a car and caravan and travelled round the mainland of Australia, working on Heron Island on the Great Barrier Reef. During 1956 they went to New Zealand and worked there for six months. On 10th February, 1957, Fred and his wife came back to Chester Zoo, where Fred became Clerk of Works.

While Fred had been away, the bridge over the Bridle Path and the Chimpanzee Islands had been built. However, there were still "teething problems" in keeping the Chimps in. Fred and Ziggy Dixon worked out a routine to get the Chimps into their indoor cages every time they escaped—with practice this went very smoothly.

In 1958, the Zoo bought a nursery garden in Storeton Road, Birkenhead, where Fred planned and built the present Quarantine Station to house the Giraffe and Zebra which were sent from Africa for Chester and London Zoos.

It was in 1958 that the Society was finally able to buy the 17 acres that lay between the Lion Enclosure and the Bridle Path. Fred was given the task of planning and building the Fountain Restaurant and more toilets for the public. The waterways were extended and a new bridge was built. All the Zoo staff were thrilled when "Motty", the Polar Bear, was born.

The Fountain Restaurant was opened in 1960. Mr. Gallup, the Head Gardener, had done a magnificent job in laying out the gardens around the Restaurant and the Lion cage. During this time, whilst the Pachyderm House was being built, Mr. Kay, the Elephant Keeper, was impatient to get his Elephants into their new home, and moved into the new house before it was completed. The Pachyderm House was officially opened in the spring of 1961.

When Chester Zoo and Whipsnade Zoo were each offered a pair of White Rhinos by the Natal Game Reserves, Fred and his wife went out to the Umfolozi Game Reserve to collect them. They were the first White Rhino allowed out of South Africa for many years. Fred adapted the crates that were being used at that time so that it would be easier to care for the animals and would

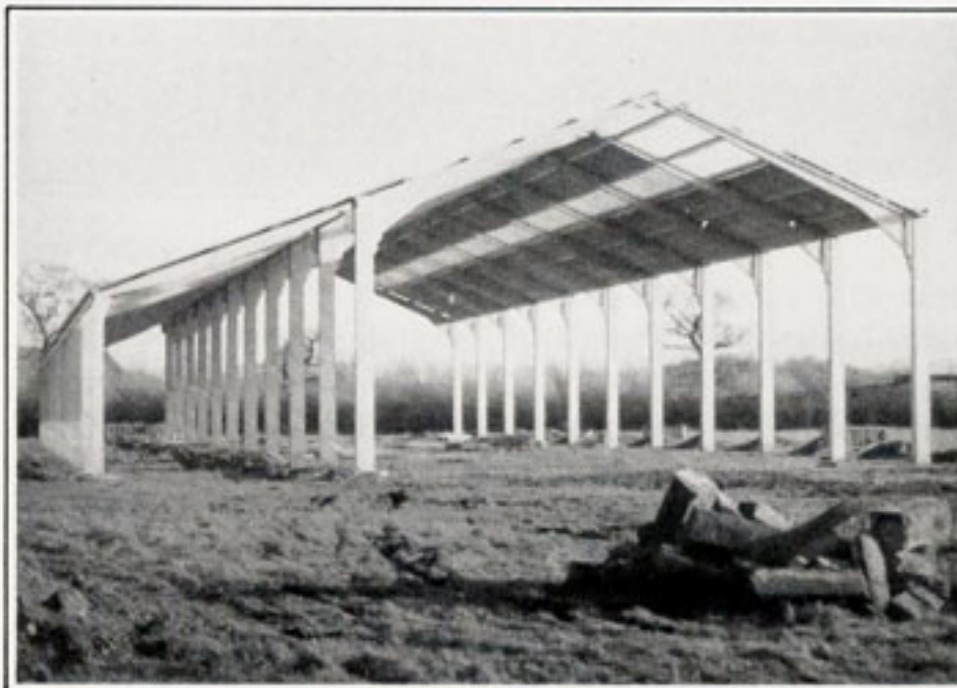


Fred and June Williams in 1962 on the boat bringing the Rhinos from South Africa

be more comfortable for the four Rhinos on the sea journey back to Britain.

The Rhino House was built along the same lines as the Pachyderm House—it was the policy of Mr. Mottershead, the Zoo Director, to employ Tylers, a firm specialising in agricultural buildings, to "roof" the large building and then let Fred and the Zoo staff furbish them.

Nineteen sixty-three was a momentous year for the Zoo—the Tropical House and the Monkey House were



The Elephant House in its early stages

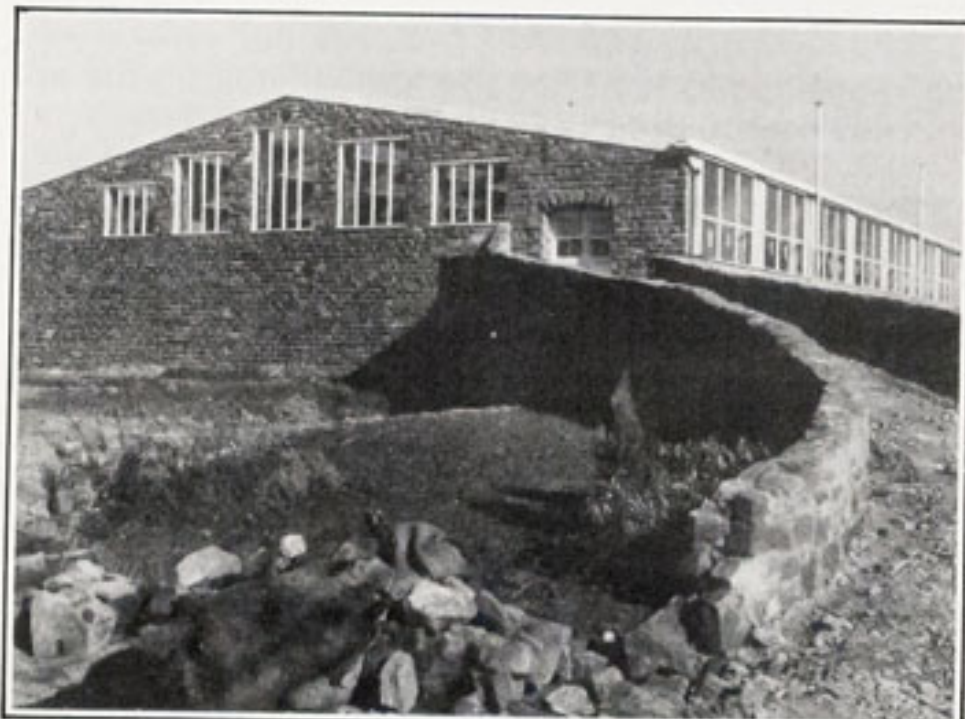
built (although the Tropical House was not officially opened until 13th June, 1964), the International Union of Zoo Directors held their 19th Conference at Chester Zoo and, for the first time, a million visitors passed through the gates. Sadly, it was also in 1963 that the Sealion "Sammy" died—he had arrived at the Zoo in the same year as Fred.

Fred was busy throughout the '60s with building Bird Houses, the Cat House, the Small Mammal House, the Animal Breeding Unit and the Ha-Ha to keep the animals in. The large number of visitors coming to the Zoo also needed looking after, so the cafeteria was rebuilt, and souvenir shops, a milk bar, new entrances, toilets and a sewerage plant were also built, together with a time office, staff canteens and a bakery. All this construction work was carried out whilst trying to cause as little inconvenience to the visitors as possible.

In the spring of 1965, disaster struck the Zoo: four Elephants and several small animals died of anthrax.

The carcasses had to be burnt—it was Fred's job to organise this distressing and monumental task. Also in this year, the Zoo purchased the field opposite the North Car Park. Until then it had been rented from the farmer during the summer as an extra car park—now gates and a hard-core drive could be built on it. It was one of Fred's many jobs to organise the car parks—Mr. Gallup, the Head Gardener, Mr. Pollard, the farmer, Charlie Collins and many other Zoo staff helped to park cars during the busy periods. It was a very hectic time for all the Zoo staff—a million visitors needed many facilities.

An outbreak of foot and mouth disease in Chester caused the Zoo to be closed from November 1967 to February 1968: this gave the Zoo a breathing-space, although everyone missed the visitors—especially the animals and birds.



Under construction—Ape House

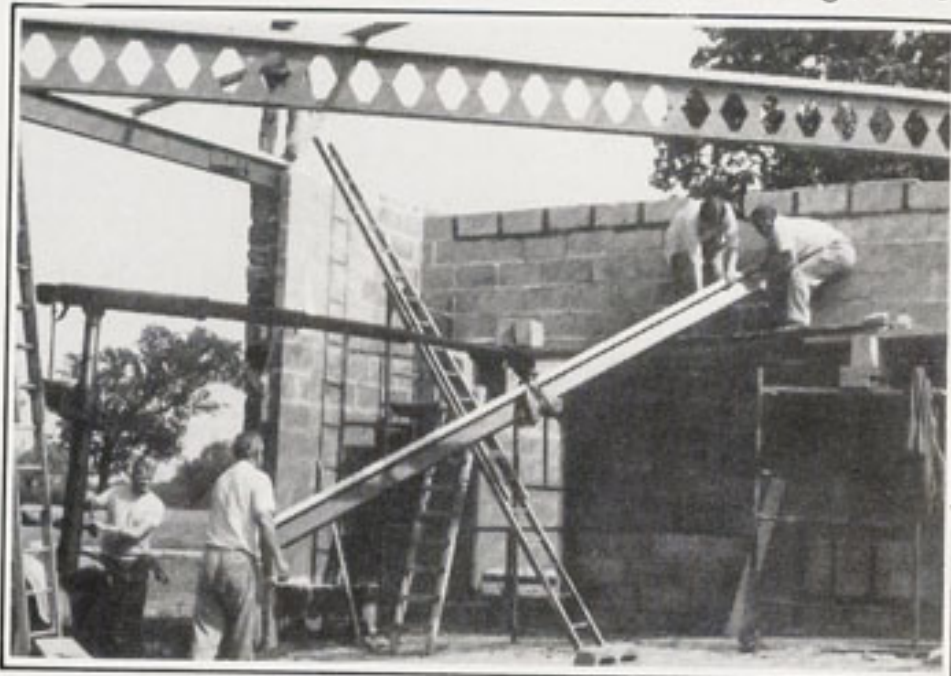
Work was started on the Ape House in that year. The sandstone with which it was built came from a school in Bromborough—it had always been the policy of the Zoo to build using local sandstone. This had been collected from various buildings in the area which were being demolished. Most of the sandstone for the Parrot, Giraffe and Zebra Houses came from Major Barbour's estates at Bolesworth Castle. The cream sandstone came from Chirk Jail. Weld-mesh wire used in different places in the Zoo came from the cat-walk of the Forth Bridge. Armour-plated glass—which, once made, cannot be



The new Sealion Pool

cut—was bought cheaply from Pilkingtons. The buildings were designed by Fred to incorporate this glass—for example, the Fountain Restaurant.

The Zoo could now afford to erect buildings other



Fred constructing the Lecture Hall

than those needed for the livestock and visitors. On 24th April, 1972, the Duke of Edinburgh visited the Zoo to open the Geraldine Russell Allen Lecture Hall, which Fred had designed and built. Fred had also designed and built the Laboratory which was situated close to the Lecture Hall. He recalls that he shook hands with the Duke, and then made a quick dash back to the Lecture Hall to be there when the Duke arrived with the accompanying V.I.P.s.

The planning of new buildings has always needed close co-operation between the Works and Gardening Departments, as can be seen by the Jubilee Garden opened by Dinah, Lady Tollemache, in 1977, which was originally a sandpit—although it had been used by the Zoo for many years as an enclosure. The co-operation needed between these two departments was also shown in 1982, when the old Bear Enclosures were pulled down, the moats filled in and the area raised to form the present South American Garden. In his last few months at the Zoo, he had been in charge of building the new Tiger House and Enclosure.

The needs of the livestock and visitors at the Zoo are always changing, therefore facilities must also change to suit these needs. During his 20 years' service, Fred has tried to fulfil all these different needs and he has enjoyed the challenge. We wish him well in his retirement.



June and Fred Williams at the time of their retirement in March 1986

Courtesy of K. W. Green, A.R.P.S.

Courtesy of K. W. Green, A.R.P.S.

Courtesy of Ken Evans, Chester Chronicle



THE NORTH WEST GROUP OF THE

Fauna & Flora Preservation Society

Once again, support was marvellous for the F.F.P.S.'s *Evening of Seals and Whales*, held at the Zoo on 17th January, 1986. This was the second meeting of the North West Group of this Society, and the speaker was Dr. Sheila Anderson of the Sea Mammal Research Unit at Cambridge, who enthralled her audience with her knowledge and interest in Seals. Dr. Anderson was also pleased to answer the many questions which cropped up afterwards.

Following a break for a buffet, a film detailing the recent research into the life and times of the Hump-backed Whale was shown. The exceptional photography and sympathetic narrative of the film left most of the audience very moved about the plight of this animal.

Well over 100 guests attended the evening, which was held in aid of the Mountain Gorilla Project, and one of the Zoo's own staff, Mr. Ray Packwood, offered a beautiful sculpture of a whale fluke, which he had carved himself, to be raffled. The extremely popular prize-winner was Sheila Anderson, who promised to treasure this reminder of her visit to Chester.

The next meeting of the North West Group of the F.F.P.S. will be:—

An Evening of Tropical Rainforests

on Thursday, 17th April, 1986, 7.00 p.m. for 7.30 p.m., at the Lecture Hall, Chester Zoo.

The speaker will be Charles Secrett, who works for "Friends of the Earth" and who is a leading authority on Tropical Rainforests. He will talk on the subject *The Forests Are Disappearing*.

Following a light buffet, a film called *Mona-Mori Qui—Atlantic Rainforest* will be shown. The evening will be in aid of the Mountain Gorilla Project and **tickets** will be available from the Zoo at a price of £3.50. Tickets will also be available at the door, but intention to attend (if possible) would be much appreciated by the caterers. (Please telephone Penny Rudd at the Zoo).

Senior Members' Meetings 1986

"Chester Zoo—A Review"

Dr. Michael Brambell

Saturday, 26th April, 1986, at 2.30 p.m., in the Lecture Hall.

The Zoo's Director will give his annual review of the Zoo's progress and, once again, it will give Members the opportunity to give their views and discuss points of interest with Dr. Brambell.

MEMBERS' BUFFET LUNCH SATURDAY, 26th APRIL, 1986

The Director will give his annual review of the Zoo's progress on Saturday, 26th April. It is customary to hold a Buffet Lunch for Members in the Oakfield Restaurant at 12.30 p.m., before this meeting, and tickets are now available from the Membership Secretary, price £5.50 each (to include one glass of wine). Numbers for the Buffet will be limited to 100, and admission will be by ticket only.

Members not attending the lunch are very welcome to attend the Review, which will start at 2.30 p.m. in the Lecture Hall.

Maureen Allsopp
Membership Secretary

MEMBERS' ANNUAL GENERAL MEETING Saturday, 31st May, 1986, at 2.30 p.m.

IMPORTANT NOTE—

Owing to the interest expressed by Members, following the Extraordinary General Meeting on 3rd April, 1986, it may not be possible to accommodate the numbers expected to attend at the Zoo, and so MANWEB Restaurant, at the MANWEB Building, Sealand Road, Chester, has been hired for the Annual General Meeting.* Buses will be leaving the Zoo's main car park at 1.30 p.m. for those without their own transport.

*Entrance to MANWEB is via the staff gate—off Knutsford Way, Sealand Road Trading Estate.

Senior Membership Meeting Reports

The Members were treated to an unusual and extremely interesting talk on *Some Aspects of Game Ranching and Management in Rhodesia*, by Mr. Brian Hughes, on Saturday, 15th February. The vast amount of knowledge accumulated in 26 years in Rhodesia, only snippets of which could be passed on to the Members, led to a stream of questions from Members wanting to know more! We hope that Mr. Hughes enjoyed his visit to the Society as much as we enjoyed listening to him speak.

Murmurs of delight and howls of laughter emanated from the Lecture Hall on Saturday, 15th March, when the Reverend Hugh Linn, of Eccleston, came to talk to Members about the *Birds of Eccleston Village*. The marvellous slides were accompanied by a lively and witty commentary, which could convert (and I am sure did so) many an interested person into an avid enthusiast for bird-watching.

Junior Members' Field Trips and Meetings 1986

The following programme of events arranged for the Junior Members for the forthcoming year has been made up with the requests of present Junior Members in mind:—

COLLECTING STOCK FOR THE NEW CHILDREN'S ZOO —Saturday, 24th May 1986

This is an opportunity to be really involved with the new Children's Zoo as a follow-up to your hard work raising funds at the Bazaar last year. Without making any hard and fast promises, we do hope to be in a position to send youngsters out to various locations, in order to collect stock and have some Juniors awaiting their return at the Zoo to help unload the animals on their arrival, and set them up in their new homes. More details nearer the time.

Meet outside the **Oakfield** at **9.00 a.m.** and **11.00 a.m.**, depending upon groups.

DAY HELPING A KEEPER—Saturday, 21st June 1986

Groups will be sent to various areas in the Zoo to help Keepers and see what their job can involve. Unfortunately, we have to limit this event to over 12-year-olds. Old clothes and "wellies" essential.

Please meet at the **Oakfield** at **2.00 p.m.**

JUNIOR MEMBERS' BAZAAR—Saturday, 26th July, 1986

The Junior Members' Bazaar in 1985 was a huge success, and we hope for even more support in 1986. Please contact me with any ideas and/or contributions you may have. Keep an eye on the Junior News in *Chez Nous* for further information.

PLEASE NOTE.—For those trips involving either a bus or provision of food, a charge will have to be made in order for us to cover basic costs. This will be collected on the day and will vary according to the distance to be travelled/food to be provided.

Booking must be made for **all** events. Please ring me at the Zoo, not more than two weeks before an event, if you would like to attend. Places may be limited.

The list is provisional and, in exceptional circumstances, we may have to alter dates of some trips, so please keep an eye on the listings in *Chez Nous* to keep up to date.

Penny Rudd
Junior Members' Club

Information about Senior Membership can be obtained from Mrs. Maureen Allsopp and about Junior Membership from Mrs. Penny Rudd at the Zoo; Tel. (0244) 380280.

Conference Day for the Junior Members

This was held on Saturday, 22nd February: the morning was spent visiting the collection and the afternoon deciding what trips and events to arrange for next year.



Juniors assembled!

Courtesy of Gerry Lockley, Chester Chronicle



Gemma Bigby and Colin Robinson with Monitor

Courtesy of Gerry Lockley, Chester Chronicle



Axis Deer Fawn the centre of attention

Courtesy of Gerry Lockley, Chester Chronicle



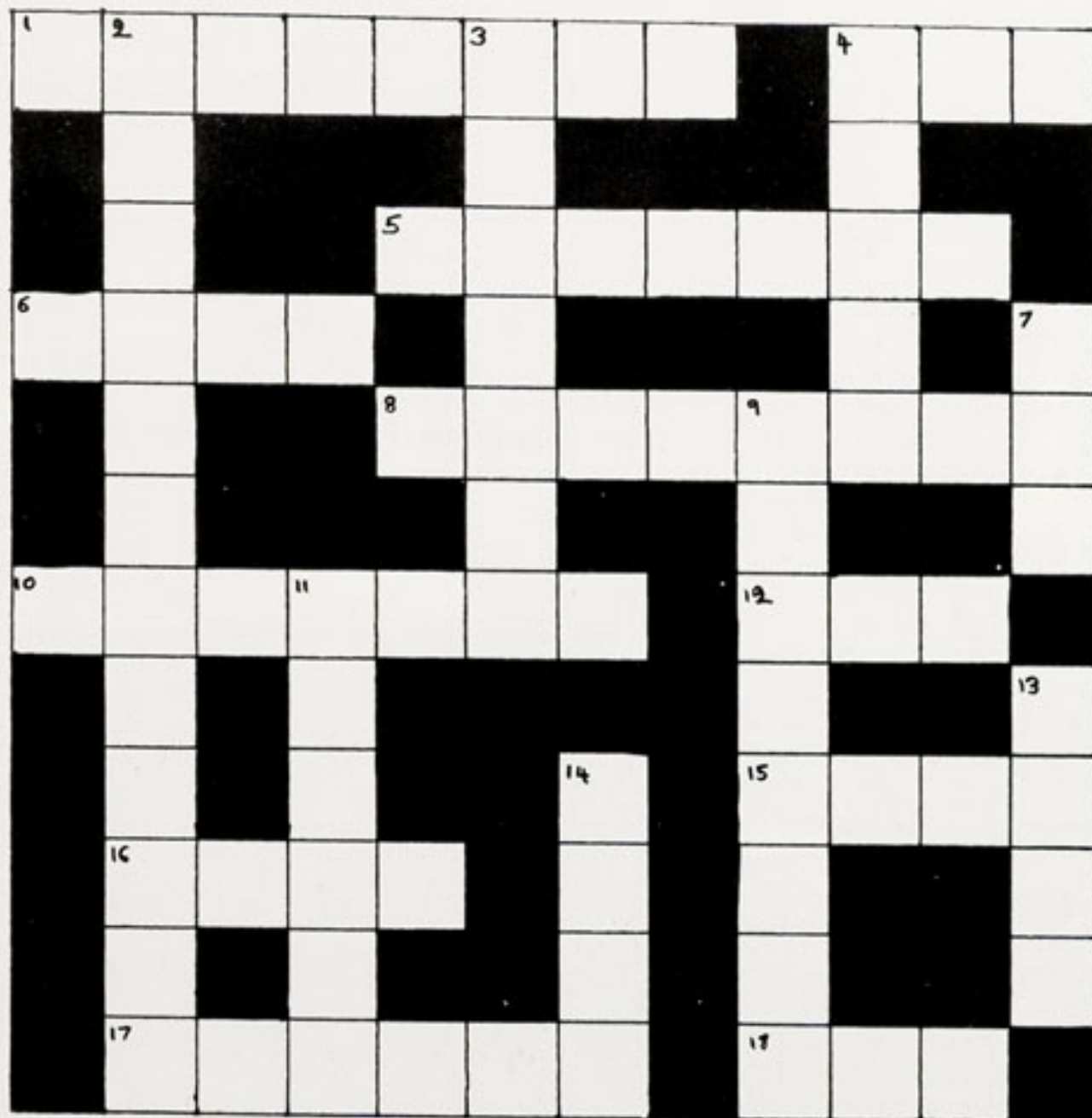
JUN NEWS

One of the Senior Members, Mr. David Randles, of Blacon, Chester, has set the crossword for the Junior Members this issue. See how you do . . .

Answers to the difficult quiz set in the last issue are as follows:—

A3, B4, C5, D7, E8, F1, G2, H6.

Prize winners were Alison Hughes from Mold (aged 11) and Nathaniel Dickson from Stockport (aged 12). Well done!



CROSSWORD

Across

1. Largest Rodent (8).
4. A Margay is a small one (3).
5. Marsupial (7).
6. Naked Animal! (6).
8. Scottish Felines (8).
10. Spiny Anteater (7).
12. Colour of Lechwe (3).
15. Cat on a golf course! (4).
16. Expensive animal to keep! (4).
17. An Ostrich is one, and so is an Emu (6).
18. The smallest kind is the Gibbon (3).

Down

2. Largest bird of prey (6, 6).
3. Type of Gazelle (7).
4. Snake (5).
7. An Onager is a wild one (3).
9. Type of Duck, or American State (8).
11. Grasshopper for example (6).
13. Type of Deer (4).
14. Where Blind Fish live (4).

Compiled by David Randles, Blacon, Chester

Arrivals and Births

0.0.4	Lion (<i>Panthera leo leo</i>)	Births	0.0.2	Waldrapp Ibis (<i>Geronticus eremita</i>)	Arrival
0.1	Bactrian Camel (<i>Camelus bactrianus</i>)	From Blackpool Zoo	1.0	Crimson-winged Parrakeet (<i>Aprosmictus erythropyrtus</i>)	On Loan from Lotherton Hall
0.1.3	Lion (<i>Panthera leo persica</i>)	Births	1.0	Crimson Rosella (<i>Platycercus elegans</i>)	Exchange
0.1.2	Axis Deer (<i>Cervus axis</i>)	Births	1.1	Blue-tongued Skink (<i>Tiliqua gigas</i>)	From London Zoo
0.0.2	Common Marmoset (<i>Callithrix jacchus</i>)	Births	0.0.1	Prehensile-tailed Skink (<i>Corucia zebrata</i>)	Birth
1.2	Red Lechwe (<i>Kobus leche</i>)	Births	0.0.2	Greek Tortoise (<i>Testudo graeca</i>)	Arrivals
1.0	Coati (<i>Nasua nasua</i>)	Returned from Malvern Wildlife Park	0.0.2	White Cobras (<i>Naja naja</i>)	From Knaresborough Zoo on Deposit
0.0.7	Margay (<i>Felis wiedi</i>)	Birth(s)	0.0.7	Albino Cobras (<i>Naja naja</i>)	From Knaresborough Zoo on Deposit
0.1	Guanco (<i>Lama guanicoe</i>)	Birth	0.0.7	Buttermilk Cobras (<i>Naja naja</i>)	From Knaresborough Zoo on Deposit
1.0	Arabian Gazelle (<i>Gazella gazella arabica</i>)	Birth	0.0.2	Western Diamond-backed Rattlesnake (Albino) (<i>Crotalus atrox</i>)	From Knaresborough Zoo on Deposit
0.0.3	Cotton-topped Tamarin (<i>Saguinus oedipus</i>)	Births	0.0.1	Western Diamond-backed Rattlesnake (<i>Crotalus atrox</i>)	From Knaresborough Zoo on Deposit
0.1.1	Blackbuck (<i>Antelope cervicapra</i>)	Births	0.0.1	Kanburi Pit Viper (<i>Trimeresurus kanburiensis</i>)	From Knaresborough Zoo on Deposit
0.1	Ankole Calf (<i>Bos taurus</i>)	Birth	0.1	D'Alberti's Python (<i>Liasis fuscus albertisii</i>)	From Knaresborough Zoo on Deposit
0.0.2	Pere David's Deer (<i>Elaphurus davidianus</i>)	Births	0.1	Indigo Snake (<i>Drymarchon corais erebennus</i>)	From Knaresborough Zoo on Deposit
0.0.1	Puma (<i>Felis concolor</i>)	Birth	0.0.2	Salvator Monitor (<i>Varanus salvator</i>)	From Knaresborough Zoo on Deposit
0.0.5	Coypu (<i>Myocastor coypus</i>)	Births	0.0.1	Bosc's Monitor (<i>Varanus exanthematicus</i>)	From Knaresborough Zoo on Deposit
0.0.6	Ring-tailed Lemurs (<i>Lemur catta</i>)	Births			
0.0.26	Afghan Pikas (<i>Ochotana rufescens</i>)	Arrivals			
0.1	White-winged Wood Duck (<i>Cairina scutulata</i>)	On loan from Wildfowl Trust			
3.3	Ruddy Ducks (<i>Oxyura jamaicensis</i>)	From Mr. T. Lay			
0.1	Maned Goose (<i>Chenonetta jubata</i>)	From Mr. T. Lay			
2.2	Emperor Geese (<i>Anser canagicus</i>)	From Mr. T. Lay			
0.1	Great Horned Owl (<i>Bubo virginianus</i>)	From London Zoo			
1.0	Pink Pigeon (<i>Nesoenas mayeri</i>)	From Jersey Zoo			
1.0	Palawan Peacock Pheasant (<i>Polyplectron emphanum</i>)	From Jersey Zoo			
1.1	Rothschild's Mynah (<i>Leucopsar rothschildi</i>)	From Jersey Zoo			
0.2	Rothschild's Mynah (<i>Leucopsar rothschildi</i>)	Arrivals			
2.0	Yellow-faced Parrotlets (<i>Forpus xanthops</i>)	Exchanged			
0.0.2	Crested Bronzewing Pigeons (<i>Ochyphaps lophotes</i>)	Hatched			
0.0.1	Coletto Mynah (<i>Sarcops calvus</i>)	From Rode Tropical Bird Gardens			
1.2	Schalow's Turaco (<i>Tauraco schalowi</i>)	Arrivals			
0.1	Eclectus Parrot (<i>Eclectus roratus vosmaeri</i>)	From Penscynor			
0.1	Californian Quail (<i>Lophortyx californica</i>)	From Phillips and Heath			
1.0	Alexandrine Parrakeet (<i>Psittacula eupatria</i>)	Presented by Mr. Haynes, Runcorn			
0.0.2	Fire-tufted Barbet (<i>Psilopogon pyrolophus</i>)	Fledged			
0.1	Yellow-backed Lory (<i>Lorius garrulus flavopalliatu</i> s)	From London Zoo			
0.0.2	Goldie's Lorikeet (<i>Trichoglossus goldiei</i>)	Exchange			
1.1	Diamond Doves (<i>Geopelia cuneata</i>)	Arrivals			
0.0.1	Java Sparrow (<i>Padda oryzivora</i>)	Fledged			
0.0.1	Red-cowled Cardinal (<i>Paroria dominicana</i>)	Fledged			
2.0	Barn Owl (<i>Tyto alba</i>)	Presented on Breeding Loan			
0.0.1	Red-backed Mousebird (<i>Colius castanotus</i>)	Fledged			

Key 1.0 = One male 0.1 = One female
0.0.1 = One of undetermined sex



Pere David's Deer and Fawn

Courtesy of K. W. Green, A.R.P.S.