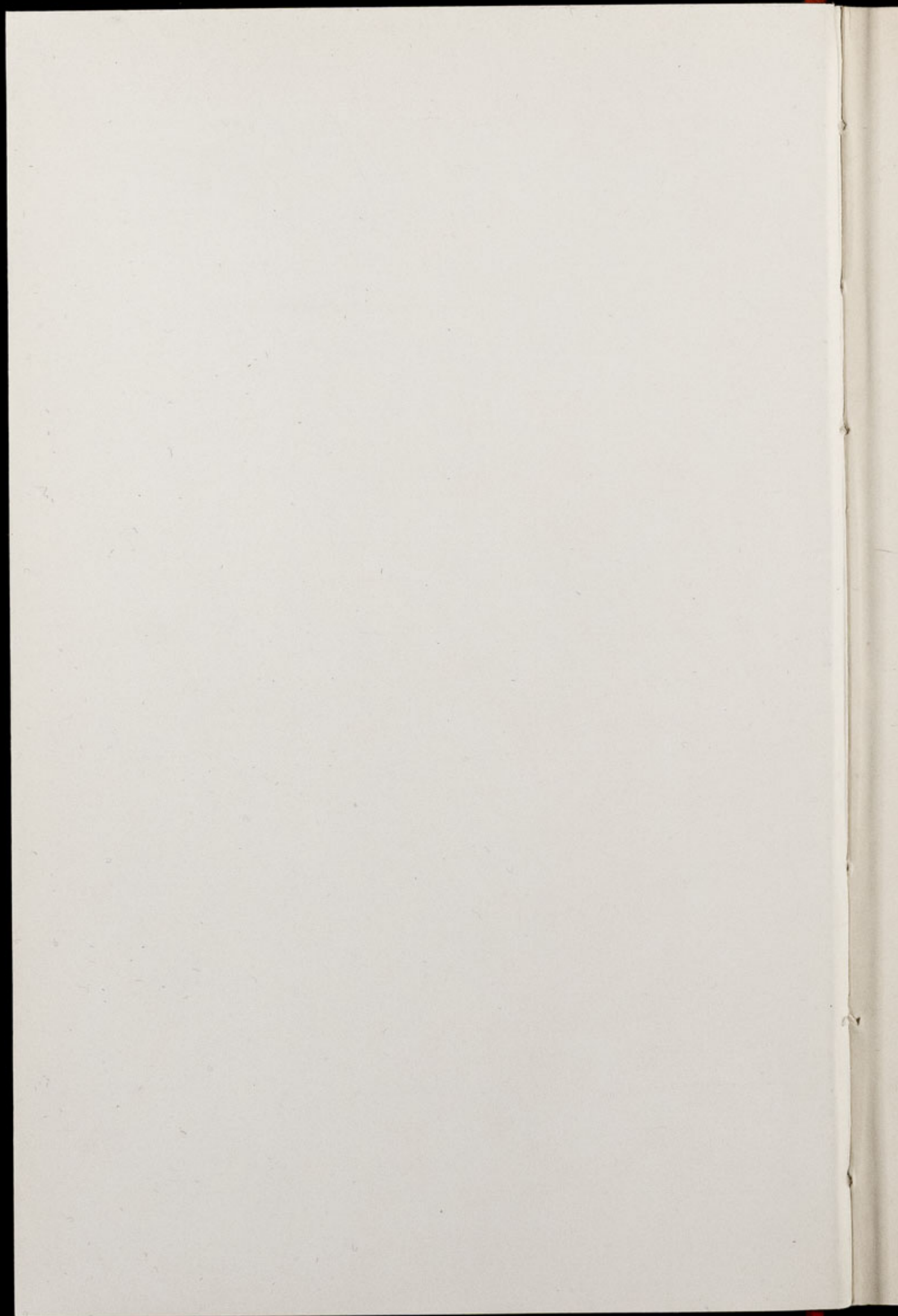


# **CHESTER ZOO NEWS**

## **AND GUIDE**

January 1977

Price 12p



The North of England Zoological Society  
ZOOLOGICAL GARDENS, UPTON-BY-CHESTER

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COVER

*"Friday"*

*By courtesy of K. W. Green, A.R.P.S.*

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Telephone Chester 20106/7/8

### HAND REARING

Early in the New Year the writer was invited along to the Curator's home to see the young chimps "Friday" and "Jeremy." Mrs. Timmis was delighted to show them to me and took me along to their "nursery" where they were installed in a playpen. They really were an enchanting sight in their woolly pyjamas for warmth, and seemed to appreciate a visitor, showing off by jostling with



*By courtesy of K. W. Green, A.R.P.S.*

YOUNG PAN TROGLODYTES "JEREMY" AND "FRIDAY"

each other and tossing somersaults. "Friday" has a deep chuckle which is most fascinating. Although the elder of the two, being 1 year old, he weighed only 9½ lbs., compared with "Jeremy" who is 6 months old and weighed 11 lbs. As with humans, some apes are larger than others. Often "Jeremy" would allow "Friday" to get the better of him in a tussel. A happier pair one could not imagine.

As will be seen from the Cover Photograph, "Friday" just

adores his "mum," and stays close to her whenever he is allowed out of the play-pen. The animals are fed on a baby cereal which they enjoy and which seems to suit them.

"Friday" was taken from his natural mother a few weeks after birth as he wasn't getting enough nourishment. Unfortunately he broke his leg in a fall and was sent to the Vet's hospital for about three weeks, returning to the Curator's home to complete his recovery. He does not appear to be any the worse for his experiences.

"Jeremy's" mother rejected him at birth and Mr. and Mrs. Timmis took him into their home where he has been ever since.

### ARRIVALS AND BIRTHS

The following mammals have recently been bred in the zoo:

1 Arabian Gazelle (*Gazella arabica*)

1 Blackbuck (*Antilope cervicapra*)

\* \* \*

Two male Musk Oxen (*Ovibos moschatus*) have been presented to us. The distribution of this species is Alaska, Canada and Greenland, and its natural habitat is the barren arctic regions where the subsoil is frozen. The small stunted willows which grow on the tundra provide leaves for food in the summer; in the winter Musk Oxen feed on moss, lichens and bark, using their hooves and horns to scrape them out of the snow. Their predator is the wolf, and in order to defend themselves the older animals form a hollow circle with the youngsters in the centre. Although they have short legs, they are extremely agile and run with considerable speed. Unfortunately they are not able to defend themselves against hunters, who seek them for their meat and fur.

In appearance this is a burly, medium sized animal. It has

a very broad head and short neck. The height of the male is about 4 ft. at the shoulder. Its horns, which are flattened at the base, are about 24 ins. in length.

The Musk Ox has a thick, dense coat which hangs down from the body. Both male and female are a dark brown colour, the saddle and lower legs being a dull yellowish colour. The huge feet are widely splayed, and this is of great assistance to them when moving over the snow. A musty odour emanates from their fur, hence the name of Musk Ox.

In the winter these oxen associate in herds varying from 20-100 animals; they do however move about in smaller groups in the summer. Only one calf is born to each cow every two years.

Our two Musk Oxen can be seen in Enclosure 107.

We are delighted to have acquired a pair of Przewalski's Wild Horses (*Equus caballus przewalskii*). These animals have now settled down in their new quarters (Enclosure 105). As far as is known these horses are now extinct in the wild, and only exist in zoos for breeding purposes. We hope to contribute to the world population of Przewalski's Wild Horses by breeding from the pair.

There are a small number of Przewalski's Horses in zoos throughout the world, and it is important that captive breeding of these animals continues. There is a possibility of some being reintroduced into their natural habitat under strict conservation measures. As the wild horse becomes sexually mature at an early age and remains fertile until it is about twenty years old, it would seem that this plan would have every possibility of succeeding if it were to be put into effect. Young are born in April or May, after a gestation period of eleven months.

Adult horses reach a height of 13-14 hands, and a length of  $8\frac{1}{2}/9\frac{1}{2}$  ft. The tail is  $2\frac{1}{2}/4$  ft. long, and the  $6/8$  in. mane stands erect.



*By courtesy of K. W. Green, A.R.P.S.*

PAIR OF PRZEWALSKI'S WILD HORSES (*Equus caballus przewalskii*)

On their backs is a well-defined dark stripe. In the summer Przewalski's Wild Horses are a light yellowish colour, but in the winter their coats turn to yellowish-brown.

The distribution of this species in the wild was the mountain ridge between China and Mongolia, with seasonal migrations. They frequented oases and damp patches. However owing to the increase in domestic stocks in these areas, and the consequent shortage of fresh water and pasture supplies, these wild horses have gradually disappeared. Four scientific expeditions undertaken since 1968 have failed to locate any of them.

In the days when hunting was allowed, European hunters found it difficult to arrive within shooting distance of these animals. They brought along well-trained race horses to assist them. Przewalski's Wild Horses are very shy and have a good sense of smell, making it most difficult for them to be captured. As one can imagine, the hunt was continued far into the isolated countryside. When defending his group, the lead stallion would attack the hunter's horses. Should hunters be fortunate enough in disposing of the lead stallion then they were able to trap the foals with a noose.

The behaviour pattern of the stallion was interesting in that it always stayed behind the herd if foals were present, but if not he kept to one side. The largest herds consisted of twenty, and these most likely fed on hard grasses.

The characteristics of the Przewalski's Horses in captivity are the same as those observed in the wild. The stallion stays apart from the herd at a distance of 7-20 yds. Herd members face the stallion when they feed, and when the herd moves about and disperses he brings up the rear, keeps the slower members moving and the herd together. Keepers should take every care as they could be faced with an attack by the stallion. The first animals to drink and feed are the mares and their foals, followed by foalless mares and

somewhat older foals. During this time the stallion stands to the side, watching the herd and the surrounding area. When ready to feed and drink himself, he drives the herd members away from the troughs. He maintains his dominance by certain head motions which the herd and even the young foals understand.

Head to tail behaviour of two wild horses is accompanied with mutual grooming by nibbling around the shoulder area. Each horse then strokes its tail across its hind end, and consequently across the face and upper neck of the other horse, thus freeing each other of insects. Animals also run one behind the other, beating their tails and freeing each other of insects. Much tail-waving procedure is used to disperse the insects. In the wild, in order to protect themselves from their predators they form a circle with their heads towards the centre with the foals in the middle. These circles are also formed to protect foals from the severe winters and during blizzards.

\* \* \*

An adult male Mandrill (*Mandrillus sphinx*) has been received into the collection in exchange.

This species originates from Central West Africa, in the forests of the Camaroons. It lives mainly on the forest floor in clearings, and on rocky outcrops.

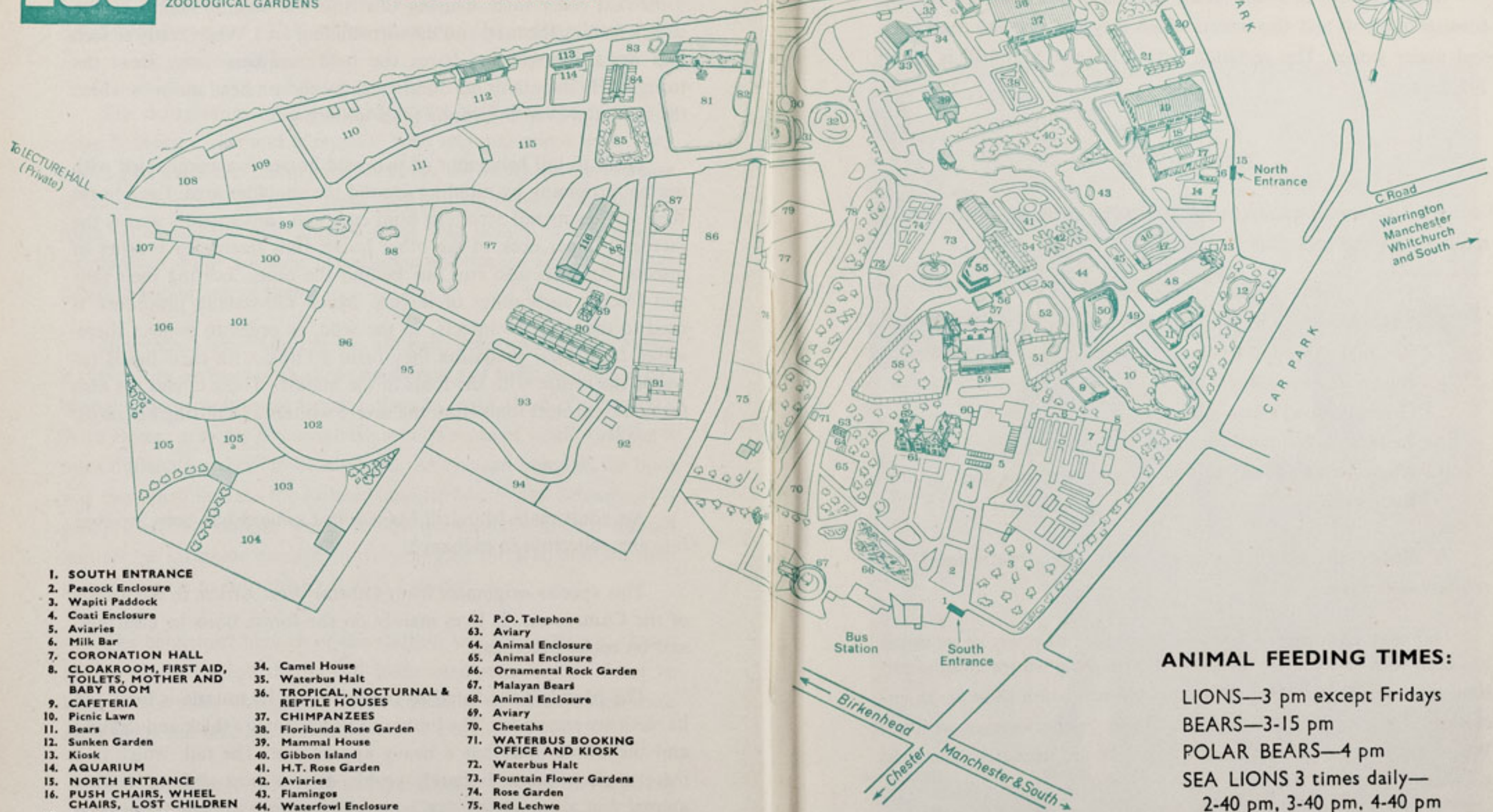
The Mandrill is related to the baboons; its muzzle is long and its teeth are enormous. The limbs of this animal are thick and straight and the whole body has a heavy appearance. The tail, which is a mere conical stump, is barely visible. It is a most striking looking animal for although its fur is mostly brown with yellowish-white underparts, it has long yellow tufts on the sides of the head. The bare parts of the skin are more highly coloured than those of any other mammal. The long nose of the Mandrill is an intense deep red, whilst the ridged skin of the cheeks is bright blue; its hindquarters are also a brilliant colour, being suffused with red and blue which in places tends to give a delicate shade of mauve. Adult males are much larger and more brightly coloured than the adult females.

# CHESTER ZOO

THE NORTH OF ENGLAND  
ZOOLOGICAL SOCIETY  
ZOOLOGICAL GARDENS

FOR A COMPLETE TOUR OF THE ZOO — Follow Nos 1-116 from South Entrance, or Nos 16-116 from North Entrance then return to Nos 1-14.

**Chester Zoo is Open Daily  
from 9.00 a.m. until dusk.**



## 1. SOUTH ENTRANCE

2. Peacock Enclosure
3. Wapiti Paddock
4. Coati Enclosure
5. Aviaries
6. Milk Bar
7. CORONATION HALL
8. CLOAKROOM, FIRST AID, TOILETS, MOTHER AND BABY ROOM
9. CAFETERIA
10. Picnic Lawn
11. Bears
12. Sunken Garden
13. Kiosk
14. AQUARIUM
15. NORTH ENTRANCE
16. PUSH CHAIRS, WHEEL CHAIRS, LOST CHILDREN
17. PARROT HOUSE
18. Free Flight Aviary
19. APE HOUSE
20. Picnic Lawn
21. Aviaries
22. TOILETS
23. Tuatara Exhibit
24. Peccaries
25. Waterbus Halt
26. Birds of Prey Aviaries
27. Condor Aviary
28. Jackal and Hyena Enclosures
29. Animal Enclosure
30. Porcupine Enclosure
31. Coypus
32. Beavers
33. Giraffe House

34. Camel House
35. Waterbus Halt
36. TROPICAL, NOCTURNAL & REPTILE HOUSES
37. CHIMPANZEES
38. Floribunda Rose Garden
39. Mammal House
40. Gibbon Island
41. H.T. Rose Garden
42. Aviaries
43. Flamingos
44. Waterfowl Enclosure
45. Waterfowl Enclosure
46. Waterfowl Enclosure
47. Penguins
48. Sealions
49. Rock Garden
50. Polar Bears
51. Cat Enclosure
52. Waterfowl Enclosure
53. Anteaters
54. BIRD HOUSE
55. FOUNTAIN RESTAURANT
56. Ape Nursery
57. TOILETS
58. Lions
59. SOUVENIR SHOP
60. TOILETS
61. OAKFIELD RESTAURANT

62. P.O. Telephone
63. Aviary
64. Animal Enclosure
65. Animal Enclosure
66. Ornamental Rock Garden
67. Malayan Bears
68. Animal Enclosure
69. Aviary
70. Cheetahs
71. WATERBUS BOOKING OFFICE AND KIOSK
72. Waterbus Halt
73. Fountain Flower Gardens
74. Rose Garden
75. Red Lechwe
76. Red Lechwe
77. Deer or Antelope Enclosure
78. Waterbus Halt
79. Zebra and Deer Enclosure
80. Kamchatka Bears
81. ELEPHANTS
82. Hippos
83. Tapirs
84. Small Mammal House
85. Waterfowl Enclosure
86. Ankole Cattle
87. Emus and Cranes
88. Stork Enclosures
89. Baboon Pens
90. Cat House
91. Big Cat Enclosures

92. Antelope and ostrich enclosure
93. Antelope enclosure
94. Antelope enclosure
95. Zebras
96. Zebras enclosure
97. Waterfowl enclosure
98. Waterfowl enclosure
99. Waterfowl enclosure
100. Blackbuck
101. Wallabies
102. Animal enclosure
103. Wallabies
104. Pere David's Deer Paddock

105. Llamas
- 105a. Llamas
106. Arabian Gazelles
107. Animal Paddock
108. Bison
109. Pere David's Deer Paddock
110. 'Prairie Marmots, Alpacas
111. Antelope Enclosure
112. RHINOS
113. TOILETS
114. Mpila Snack Bar
115. Antelope Enclosure
116. MONKEY HOUSE

## ANIMAL FEEDING TIMES:

- LIONS—3 pm except Fridays  
 BEARS—3-15 pm  
 POLAR BEARS—4 pm  
 SEA LIONS 3 times daily—  
 2-40 pm, 3-40 pm, 4-40 pm

ANIMALS MAY BE MOVED  
FROM TIME TO TIME

Mandrills live in small family groups in the wild. Their food consists of plants and also insects which they find beneath dead bark and under stones. The gestation period for the Mandrill is about 245 days.

### BIRD NOTES

We are pleased to report the following birds which have been received into the collection:

- 1 Toco Toucan (*Ramphastos toco*)
- 7.3 Lady Amherst's Pheasants (*Chrysolophus amherstiae*)
- 2 Renault's Ground Cuckoos (*Carpococcyx renauldi*)
- 1.0 Raven (*Corvus corax*)
- 1 Green Peafowl (*Pavo muticus*)
- 1 Red-billed Wrinkled Hornbill (*Aceros leucocephalus*)
- 0.1 Abyssinian Ground Hornbill (*Bucorvus abyssinicus*)
- 5 Budgerigars

A Blue-eared Glossy Starling (*Lamprocolius chalybaeus*) has recently been bred.

Our male Abyssinian Ground Hornbill (*Bucorvus abyssinicus*) has been with us since April 1974 and during the winter months can be seen in the Temperate Bird House. He will be on show in an enclosure at the back of the Monkey House in the warmer weather. We recently acquired a mate for him but unfortunately she died soon after arrival at the zoo.

Our collection of hornbills also includes the female species of a pair of Indian Pied Hornbills (*Anthracoceros malabaricus*) presented to us in October 1974. This species originates from India and Burma. We also have a male Black Hornbill (*Anthracoceros malayanus*), and two female Great Indian Hornbills (*Buceros bicornis*), both species originating from S.E. Asia.



*By courtesy of W. H. Timmis*

ABYSSINIAN GROUND HORNBILL (*Bucorvus abyssicus*)

Hornbills are quite lively birds, despite their seemingly heavy beak attached to a thin feathered neck. They appear to lope in flight and this attitude would seem to be caused by the large, heavy beak, but in fact the beak is not very heavy as the inside is full of holes and is strengthened by cross-struts. Their flashing eyes, which have long eyelashes, appear to be very alert to what is happening around them. They are extremely intelligent birds. Nature has provided their large beaks as very sensitive and delicate instruments for the purpose of investigating anything unfamiliar around them.

In courtship the male hornbill has been observed to present his mate with a small egg from the tip of his beak, and then to cough up two more eggs and present them to her, all undamaged. There followed an elaborate courtship ceremony.

The Ground Hornbills, which are entirely African, are well-known on open savannah, and are often to be seen in the open plains of the National Park in Uganda. These birds are distinguished by their black plumage and red wattle on the throat. They are large and heavy and have long stout legs. Ground hornbills prey on small reptiles and insects and are reputed to attack snakes; they are also scavengers.

When attacking a snake, a group of birds will surround it. One bird advances sideways towards the snake with its wing outstretched. As the snake strikes it catches the wing and the bird can beat it to death before it can remove its fangs.

Unfortunately there is a shortage of nesting sites for the hornbills as many African forests are being, or have been cut down. It is thought that the savannah species migrate according to the level of food supplies, as these areas are subject to rains and droughts. Ground Hornbills take over the deserted nests of other birds to be found in trees and sometimes on cliff ledges.

The arboreal hornbill has a fascinating nesting behaviour. It nests in holes in large trees, and after mating the female retreats into the hole. The pair then build a wall across the entrance and only a narrow slit, about 2 ins. wide and 8 ins. long is left open. The female is then entirely dependent on the male. He provides her with food which he puts through the slit. Several types of walls are built, the most common being made of earth, sticks and saliva from outside the nest, and rotten wood and dung from the inside. When the chicks arrive the male must provide food for his whole family.

One would assume that the nest areas are first selected in order that sufficient food would be available when the time came. The female can break out of the nest whenever she wishes, that is if the male should die and she were to be bereft of food supplies for herself and the youngsters. In some species the hen breaks out before the chicks are fully fledged in order to assist her mate. The chicks themselves plaster up the wall again from the inside and remain in the nest-hole until they can fly.

Hornbills are believed to pair for life. Their clutches vary from 1-6 eggs, but the usual clutch is 2-4. Incubation periods vary from 28-40 days, and it then takes another 4-8 weeks for the young to mature.

Throughout the whole of the incubation period and usually until the young are about half grown, the female remains in her nest for a minimum of six weeks, and some species remain there for nearly three months. The hen fits into her quarters by turning her tail forward over her back, taking advantage of this period of inactivity to go through her moult. She first of all sheds her tail feathers soon after she starts to incubate, and the flight and body feathers are eventually replaced. When the female comes out of the nest-hole she is in good condition and can fly quite easily after being so long in cramped quarters.

The chicks are also adapted for hole-nesting, the tail sticking straight up, thus increasing the amount of space available in the nest. The tail of the nestling does not come down until it is old enough to fly.

Not a great deal is known about the hornbill in the wild outside the breeding season. In captivity these birds live peaceably together if they are a true pair. Breeding, however, is quite rare amongst hornbills in captivity.

The Renault's or Coral-Billed Ground Cuckoo (*Carpococcyx renauldi*) is a spectacular cuckoo, being as large as a pheasant, twenty-seven inches in length—including fourteen inches of tail. It has a coral-red bill and legs, a red and violet patch around the eyes, and grey plumage with black head, neck, throat, primaries and tail diagnostic. The upper parts are glossed with violet, green and purple, and the underparts finely vermiculated with black.

There is practically no useful literature on the species. Very little is known about its habits, because it stays in dense cover on ground making it very difficult to observe; it runs to escape from danger. It has a distinctive human or gibbon-like call and has been heard calling from March into May in the Khao-Yai National Park, Thailand. These cuckoos are endemic residents up to 3,000 ft. in North East and South East Thailand, and Indo-China, except Tonkin and Northern Laos. They live in dense forest, scrub and "second growth".

### AQUARIUM NEWS

A number of White Cloud Mountain Minnows have recently been bred (*Tanichthys albonubes*) and we expect these to grow to 4 cms. in length. The parents do not usually eat their young, but as a precaution we take the fry out of the breeding tank and put them in a separate tank whilst they are growing. A few eggs are hatched each day.

We have acquired three Red Oscars, or Velvet Cichlids (*Astronotus ocellatus*), and these originate from the Amazon and the Rio

Negro. They will grow to about 33 cms. long, and are now about 25 cms. Two of them are a true pair and are more of a golden colour—the other is a brilliant red. These fishes have been placed in a tank with larger Cichlids, including a Common Oscar (*Astronotus ocellatus*).

Two Discus (*Symphysodon species*) have been acquired. They are now about 10 cms. in length and are quite lovely fish, beautifully coloured with brown and blue stripes and flecks. We already have three Discus which used to be shy and always hiding in the tank. The new ones have given them courage and now they are all swimming about quite happily. These fishes also originate from the Amazon. They will grow to about 20 cms. long.

### GARDENING NOTES

During January and February we give special attention to the plants growing in the animal and bird houses. In the Monkey House the previous season's growth of Bougainvillea is pruned back to the main stem. The rubber trees growing over the cages are thinned out to let in more light. Several variegated rubber trees are planted between the cages and we hope to let these take over increasingly from the other rubber trees, as their growth is less vigorous.

At the end of the Monkey House is a large specimen of *Datura suaveolens*; *suaveolens* means sweet-smelling. This is 20 ft. high and we have to give it support with wires because the stems only make soft wood. *Datura suaveolens* have to be pruned well back because growth is rapid in the summer.

The palm growing in the centre of the Monkey House will soon become a problem as it has reached the height of the roof. Because it belongs to the *monocotyledon* group of plants one cannot cut it off half-way down and expect it to break out with more shoots, as the trunk would die.

To keep the plants growing healthily and vigorously a liberal layer of well-rotted manure will be forked into the beds and borders.

Where we can, we clean the leaves with a wet sponge as this is the only means of getting off the dirt.

Orchids are being staged in the Tropical House as they come in flower. A group of *Coleus thyrsoideus*, which has spikes of blue flowers, is now in the Tropical House. Among the other group is a Banana plant which is in fruit. This is *Musa Cavendishi*, a dwarf banana which we grow in tubs in the greenhouse and display in the Tropical House when fruiting. The thirty-foot tall Banana tree *Musa paradisiaca variety sapientum* is planted out in three groups in the Tropical House and there is nearly always a bunch of bananas to be seen.

Annual pruning and cleaning in the Tropical House is now being done, and for the palms this involves erecting scaffolding 25ft. high. Most of the small plants growing in the troughs and pockets, such as *Tradescantia*, will be pulled out, as they outgrow themselves in a season and will be replaced with young ones early in March. The troughs will have a top dressing of fresh soil.

Plants for this year's bedding schemes continually receive attention in the form of tying and "potting on." The first seeds, such as *Begonia*, *Lobelia* and *Antirrhinum*, will be sown at the end of this month.

So far this winter has been more severe than those of the past few years. We hope this will restore the balance of nature so far as pests and disease are concerned.

### SUBSCRIPTIONS

New readers of the CHESTER ZOO NEWS who would like to receive the magazine regularly may be interested to know that subscription forms can be obtained from the souvenir shops. An annual subscription (12 issues) costs £2.24, postage paid, which can either be handed over the counter at the shops or posted with the completed form to the Director-Secretary, Chester Zoo, Chester.

**The following notice is displayed on several boards in the grounds  
Please comply with it at all times**

### **FEEDING OF ANIMALS AND BIRDS**

**IT IS AN OFFENCE** for any member of the public to offer food of any description to any Animal or Bird in Chester Zoo.

This regulation is made for the sake of the health of the Animals and Birds. Since the **NO FEEDING** rule was introduced, the number of deaths has dropped appreciably and sickness due to wrong feeding has been virtually eliminated.

What you may be offering to an animal may only be a sweet or an inoffensive piece of bread, but it can mean a death sentence for the animal. For example, a cough drop, which may relieve your cough, can cause instant death to many Animals and Birds in the Zoo.

You must not lose sight of the fact that you are only one of over a million visitors who visit the Zoo annually. If for instance an elephant had one bun from only one tenth of a day's visitors during the summer, it would eat between three and four thousand. You can guess the result.

We realise what a temptation it is for visitors, particularly children, to feed our Animals and Birds and this is why we invite members of the public to be present at the official feeding times.

This is a polite warning to you, asking you not to feed the animals. If you ignore it, the Keepers are authorised to ask you to leave the Gardens.

**If you really love Animals and Birds, you will appreciate the wisdom of the ruling — No feeding by members of the public.**

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**PLEASE HELP US TO KEEP OUR COLLECTION OF  
ANIMALS NOT ONLY ALIVE BUT IN FIRST CLASS  
CONDITION**

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