

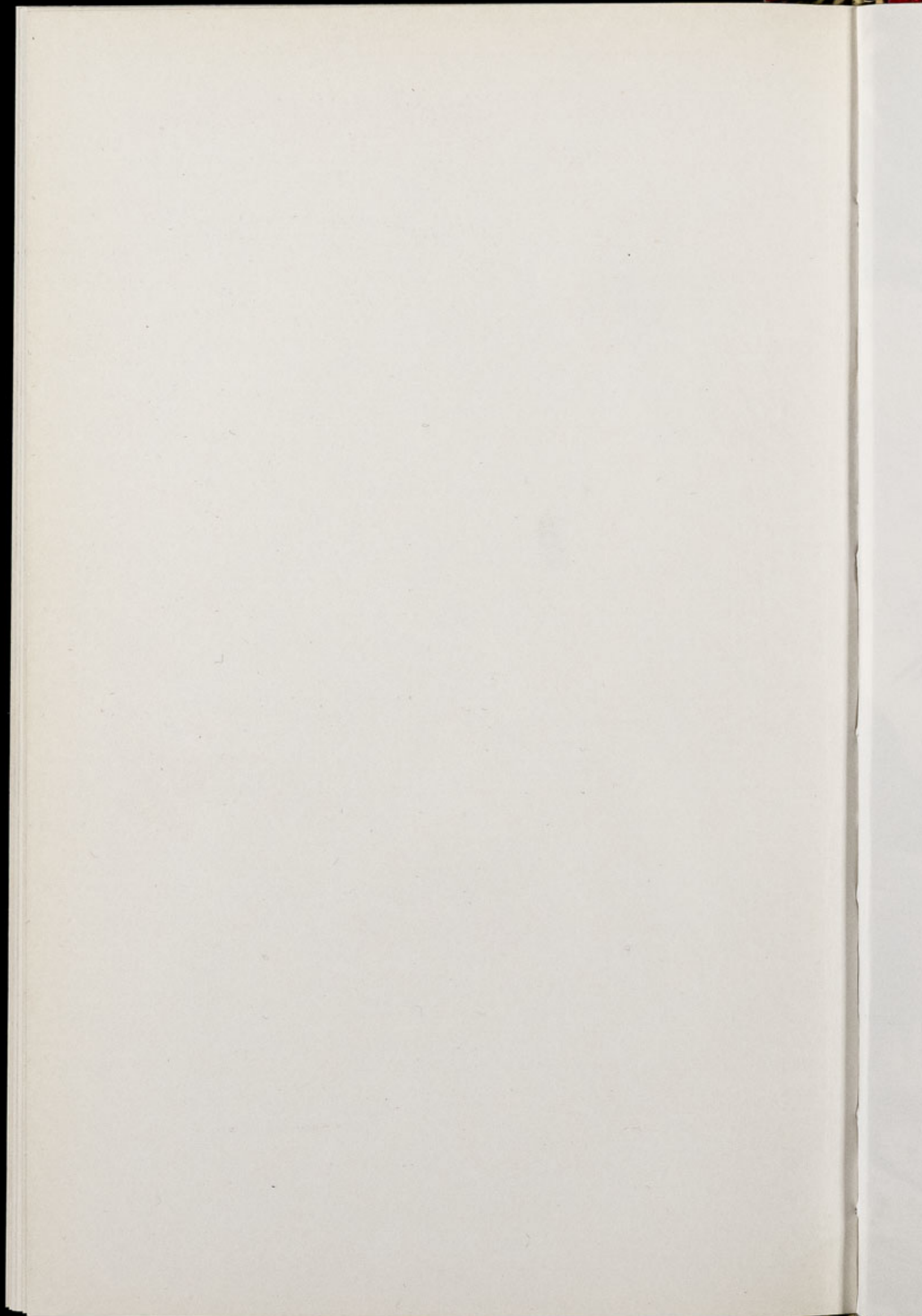


**Chester Zoo News**  
**AND GUIDE**

THE NORTH OF ENGLAND ZOOLOGICAL  
SOCIETY, ZOOLOGICAL GARDENS  
UPTON-BY-CHESTER

November 1980

Price 15p



# North of England Zoological Society

ZOOLOGICAL GARDENS, UPTON-BY-CHESTER

## COUNCIL

PROF. J. O. L. KING, Ph.D., M.V.Sc., B.Sc(Agric.), F.R.C.V.S., F.I.Biol.  
G. R. PRYOR, C.Eng. (Vice-Chairman) (Chairman)  
J. N. WILSON  
F. MOSFORD  
H. D. COOPER, F.I.M., A.I.B.  
A. J. BLAND, Dipl.Arch.R.I.B.A.  
R. P. OWEN, A.R.I.C.S.  
MRS. B. H. IRVINE  
F. S. CARSON, M.C., B.A.(Cantab.)  
DR. J. E. D. CHARLES-JONES, M.B., B.S., M.R.C.G.P.  
DINAH, LADY TOLLEMACHE  
W. KELSALL, O.B.E., Q.P.M.  
DR. J. R. BAKER, Ph.D., B.V.Sc., M.R.C.V.S.  
L. C. YOUNG, C.B.E., B.Sc.(Econ.)  
I. YULE, E.R.D., J.P.  
DR. M. R. BRAMBELL, Ph.D., M.A., Vet.M.B., M.R.C.V.S. (Director)

## CONTENTS

<i>page three</i>	The Curassows at Chester
<i>page seven</i>	Notes from the Gardens
<i>pages eight/nine</i>	Zoo Guide
<i>page eleven</i>	New Polar Bears arrive at Chester
<i>page thirteen</i>	More Important Arrivals
<i>page sixteen</i>	Subscriptions

## ILLUSTRATIONS

<i>page two</i>	Hen Curassow and Chicks (Three days old)
<i>page four</i>	Keeper Nick Manning with Curassow Chicks (One week old)
	Curassow Chick (Two months old)
<i>page twelve</i>	"Nanook" and "Nija" in their New Home
<i>page thirteen</i>	Polar Bear Distribution Map
<i>page fifteen</i>	Baby Hippopotamus "Caspar" taking First Steps in Outside Enclosure with Female "Myra"

## COVER

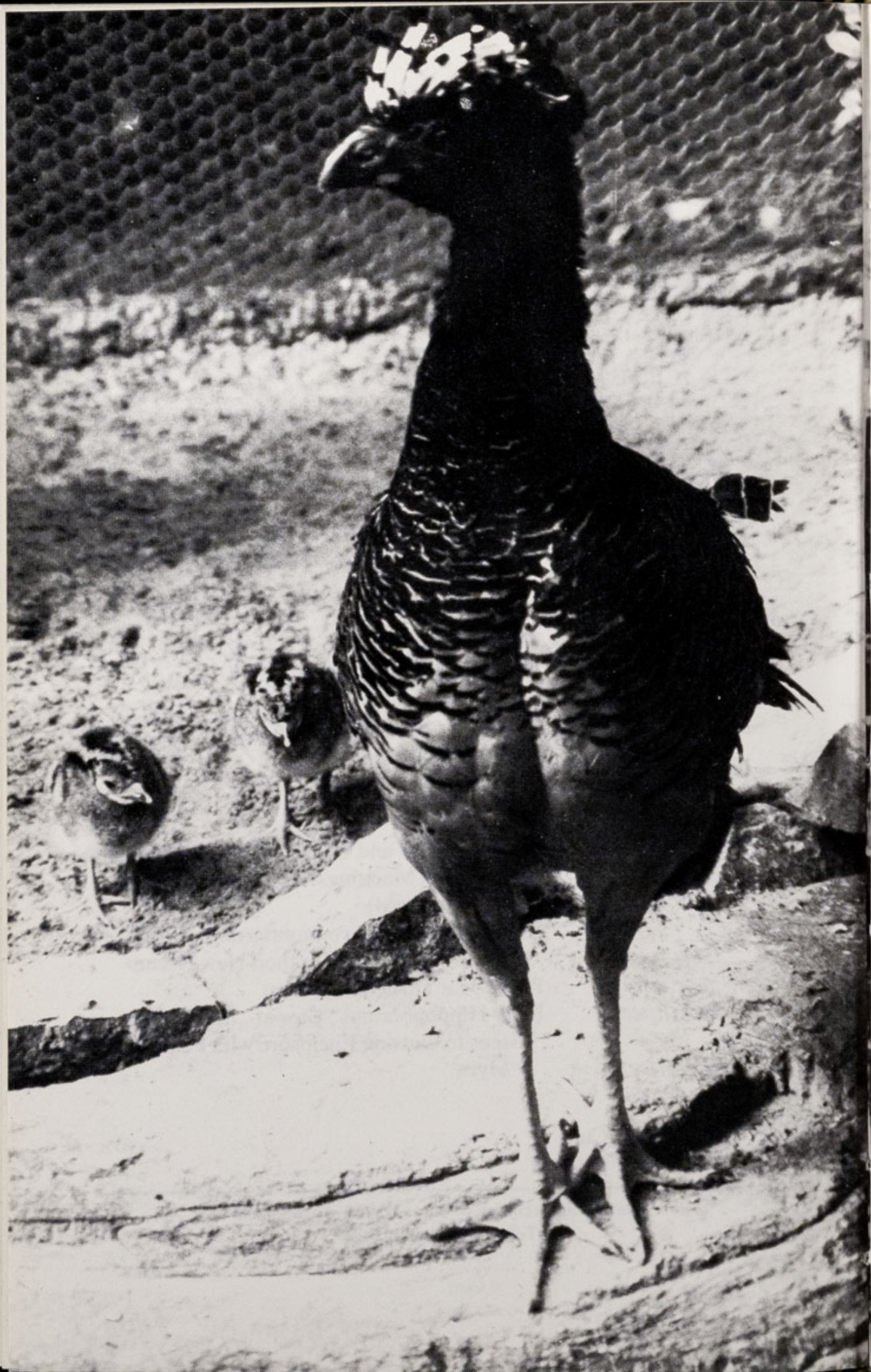
Polar Bear Cub

*By courtesy of "Evening Leader"*

---

Annual Subscription — Three Pounds, postage paid

Telephone Chester 20106



## The Curassows at Chester

Sclater's Crested Curassows (*Crax fasciolata sclateri*) have been kept at Chester since 1961, when two pairs were acquired, which subsequently bred, and seven chicks were raised between 1967 and 1969. We are pleased to report a successful hatching of two this year, in late August, and both chicks are now independent and fully feathered.

The Curassows belong to the family Cracidae of the order Galliformes—the group which includes pheasants, peafowl and the domestic turkey and hen. They inhabit the Americas, having probably originated in what is now the U.S.A., but they are now predominantly found south of Panama and restricted to the tropics and sub-tropics. There are three groups within the family, namely the Chachalacas, Guans and Curassows with some 40 species.

The Curassows are, with the exception of the Nocturnal Curassow (*Nothocrax urumutum*) from the genus *Crax*. They are larger than the other Cracids and more terrestrial, but they do nest, roost, call and often feed in the trees. Their natural habitat is primarily rain or cloud forest, being entirely absent from the arid savannah regions and colder southern countries of South America. Their behaviour is rather fowl-like, their bill being heavy and powerful, enabling them to pick over the ground, often scratching in the manner of the domestic chicken. They have a heavy muscular gizzard with a rough horny lining, in which hard seeds and nuts are ground up with grit, which these birds—like many others—eat to assist the breaking-down of food items. Although predominantly vegetarian, they will take insects as the opportunity arises.

The whole family of Cracids are highly vocal and the adult male Curassow in Chester's collection often emits a dull booming note reminiscent of a bittern; the female has a higher note, more like a clucking. Both birds display and will carry out mock preening—no doubt displacement behaviour.

All Cracids, with no exceptions, nest above the ground, and may go as high as 40 feet. The nests are small in proportion to the birds and are usually made from grass and green leaves.

Opposite:

HEN CURASSOW AND CHICKS (Three days old)

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



KEEPER NICK MANNING WITH CURASSOW CHICKS (One week old)

*By courtesy of Mel Grundy*

CURASSOW CHICK (Two months old)

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



The family are large, graceful, attractive birds, usually tame and confident. As a result, they have attracted much attention and been kept in captivity since their discovery. However, they have not proved as attractive to European aviculturists as the brilliantly-coloured pheasants of the Old World and, furthermore, the Cracids do not adapt well to the harsh European winters, being particularly prone to frost-bite on the toes; consequently they must be provided with indoor winter accommodation.

Of the four birds received by Chester in 1961, one pair attempted to breed in 1966 in the existing Bird House, where they were at liberty but, unfortunately, the eggs were taken by other predatory birds. Two eggs were again laid in 1967, hatched and reared by the parents, a full account of which is given by Michael F. Coupe, now our Public Relations Officer, in *Aviculture Magazine* No. 72. Further successes followed in 1968 and 1969, but a number of deaths eventually left us with a single cock bird in 1970 from the original four. In 1975, a female was acquired from Jean Delacour from his great collection at Cleres, and it is this pair which have produced their first eggs this year.

The eggs were laid on 22nd and 23rd July this year, in a food-tray some two metres above ground level, the first egg weighing 165 grams. The eggs were immediately removed and placed under a foster bantam, over turfs which were dampened daily whilst the bantam was allowed off the eggs for feeding and exercise. The eggs were turned by hand twice daily, for we suspected they would be too large for the bantam to manage. After one week, the eggs were candled and the development of the embryos was seen to be proceeding. This was confirmed when the first egg pipped on the 31st day of incubation. However, at this stage, the bantam started pecking this egg, so both eggs were promptly removed and placed in an incubator at 98°F. After five hours, the first chick had hatched and the second appeared some 24 hours later. Both chicks were extremely active within 12 hours. They were fed after 24 hours on a mixture of finely chopped apple, hard-boiled egg, chick-starter crumbs, insectivorous mixture and green food, with additional bone-meal and vitamin/mineral supplement. They were also provided with live meal worms. Both chicks weighed 90 grams at one day old, and 100 grams each at two days old. They were placed with another

foster bantam, which assisted in teaching the chicks to feed. Previous observations by Michael Coupe at Chester showed that the natural parents hold food in their beaks for the chicks and, this year, it was noted how the chicks pecked at the bantam's beak.

Additional heat had to be provided by a 250-watt dull infra-red emitter because, within two weeks, the foster bantam was having difficulty in covering the chicks at night while they roosted on the ground. They did not use the perching provided until they were about four weeks old.

It was noted that, on hatching, the older chick had the inner front digit of each foot turned inward, but these straightened out after a few days. However, the digit on the left foot deteriorated after about ten days and, by three weeks, it was badly bent. As this deformity had been present at birth, it was not thought to be due to a deficiency in the chick's diet. The toe was splinted with a matchstick and, on removal of the matchstick six days later, the toe was straight and has remained so.

The chicks quickly feathered up, for, at one week old, the flight feathers were well developed. The crests started to appear at four to five weeks and were quite prominent at six weeks.

We know of no other collection in this country which has these Curassows, but we hope to be able to enter into a breeding exchange programme with other owners abroad. Our male is now at least 20 years old and so may be nearing the end of his natural life-span, and so it is important that we obtain a reserve cock bird.

The Curassows, along with the Guans and Chachalacas, are under threat in the wild from the direct persecution of hunters and—more serious—from the loss of their habitat, the rain forest. These attractive birds, in spite of their low rate of reproduction, have managed to survive the pressures from the former, but the destruction of the forest will reduce their numbers significantly, so that they may become limited to reserves and other protected areas. Should this occur, then such comparatively small populations will be even more vulnerable and so captive populations will take on a much more important role in the survival of this group. It is impor-

tant therefore that we do all that is possible to breed these birds, and learn something of their requirements, so that we will be better equipped to maintain viable populations, both in the wild and in captivity.

Peter M. C. Stevens  
*Curator of Birds*

**References:** Coupe, M. F.; 1966: 'Aviculture Magazine 72' pp 168-169  
Delacour, J.; Amadon, D.; 1973: 'Curassows and Related Birds'  
(The American Museum of Natural History)

### Notes from the Gardens

We had reasonable weather during October to take the summer plants out and plant out the spring flowering plants and bulbs. It is always sad to destroy a bed or border of flowers when they look so nice, and bewildered visitors find it hard to understand until we explain that frosts can come any time and kill them.

Only the Pansy will be flowering for a week or two yet, but there is some beautiful colour to be seen in the shrubs, with autumn tints and berries. Also, depending on the weather, the Roses will go on flowering.

Turning to the shrubs, many are at their best in late summer and autumn. The *Hydrangea* flowers late summer, then many of the pink-flowered varieties turn to a crimson tint in the autumn.

*Leycesteria formosa*, common name Flowering Nutmeg, flowers late summer and goes on until the frost kills it. It will grow up to six feet high and it flowers on the end of its shoots in clusters of white blooms hanging under crimson bracts; purple crimson berries follow. This shrub originates from the Himalayas.

The hardy *Fuchsia* will go on flowering late; the only suitable hardy one here is *Fuchsia riccartoni*, which has a small red and purple flower. It is named after the Riccarton Gardens, Edinburgh. Other varieties of *Fuchsia* have been tried, but they usually die down to ground level in the winter, through frost.

# CHESTER ZOO

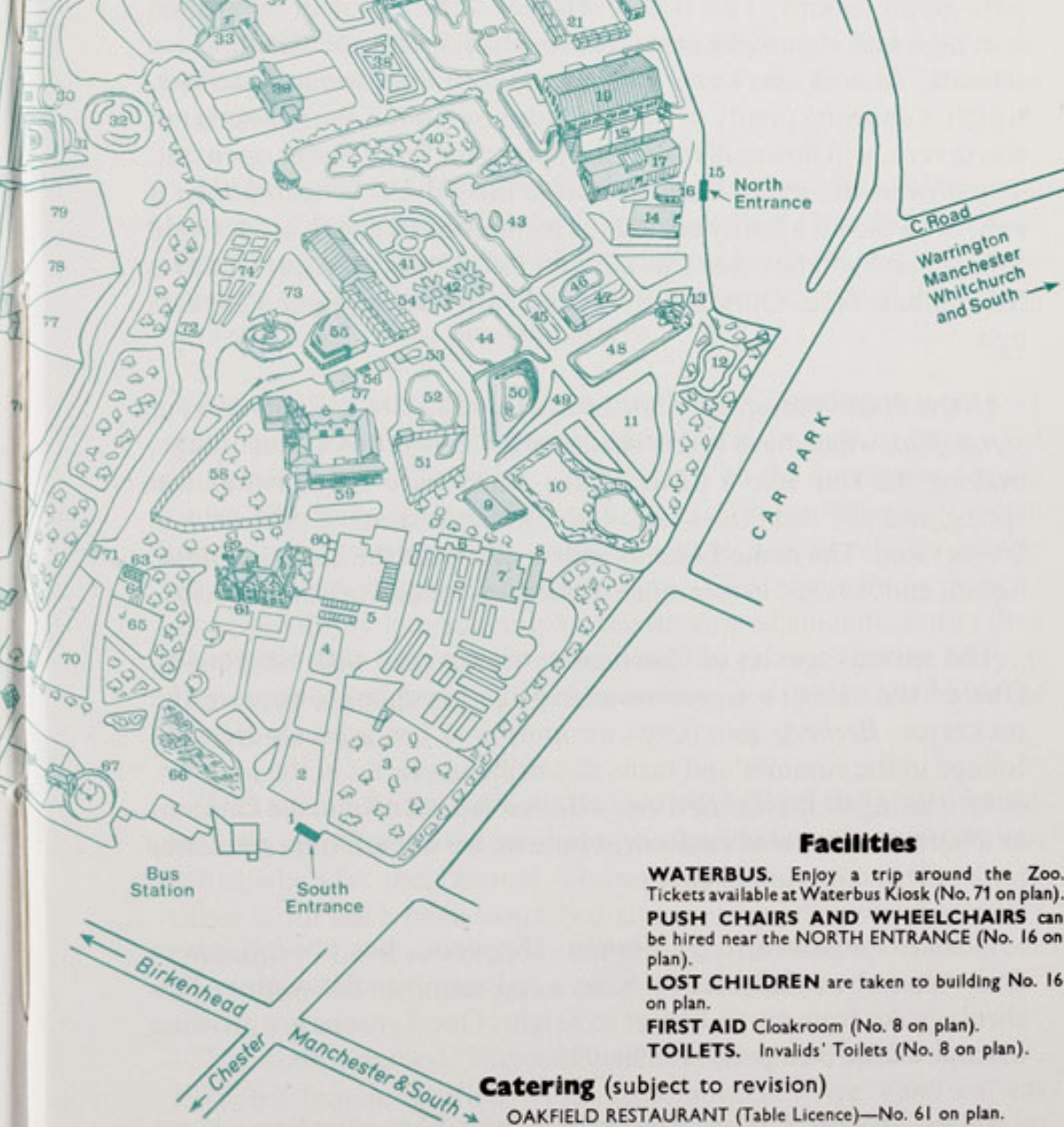
THE NORTH OF ENGLAND  
ZOOLOGICAL SOCIETY  
ZOOLOGICAL GARDENS

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 10a.m.**



TO LECTURE HALL (Private)



## 1. SOUTH ENTRANCE

2. Peacock Enclosure
3. Wapiti Paddock
4. Raccoon Enclosure
5. Aviaries
6. Milk Bar
7. CORONATION HALL
8. CLOAKROOM, FIRST AID, TOILETS, INVALIDS' TOILETS, MOTHER AND BABY ROOM
9. CAFETERIA
10. Picnic Lawn
11. Ornamental Garden (under construction)
12. Jubilee Gardens (Noah)
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. Shop and Kiosk
21. Aviaries and Picnic Lawn
22. CLASSROOM
23. TOILETS
24. TUATARA EXHIBIT
25. Peccaries
26. Birds of Prey Aviaries
27. Condor Aviary
28. Wild Dogs
29. Animal Enclosure
30. Porcupine Enclosure
31. Coypus
32. Beavers
33. Giraffe House

34. Camel House
35. Giant Tortoise Paddock
36. TROPICAL AND REPTILE HOUSES
37. CHIMPANZEES
38. Floribunda Rose Garden
39. Zebra House
40. Waterfowl Island
41. H.T. Rose Garden
42. Aviaries
43. Flamingos
44. Waterfowl Enclosure
45. Site for new Penguin Pool
46. Site for new Penguin Pool
47. Site for new Penguin Pool
48. Sealions
49. Rock Garden
50. Polar Bears
51. Big Cat Enclosure
52. Waterfowl Enclosure
53. Capybara
54. BIRD HOUSE
55. FOUNTAIN RESTAURANT
56. Animal Exhibit
57. TOILETS
58. Lions
59. SOUVENIR SHOP
60. TOILETS
61. OAKFIELD RESTAURANT & G. S. Mottershead Memorial Gds

62. P.O. Telephone
63. Gibbons
64. Arctic Fox Enclosure
65. Serval Enclosure
66. Ornamental Rock Garden
67. Wallabies and Kangaroos
68. Kangaroo Enclosure
69. Paddock
70. Cheetahs
71. WATERBUS BOOKING OFFICE AND KIOSK
72. Rose Gardens
73. Fountain Flower Gardens
74. Rose Garden
75. Red Lechwe
76. Red Lechwe
77. Deer or Antelope Enclosure
78. Zebra and Deer Enclosure
79. Zebra and Deer Enclosure
80. Brown Bears
81. ELEPHANTS
82. Hippos
83. Tapirs
84. Small Mammal House
85. Waterfowl Enclosure
86. Ankole Cattle
87. Emus, Cranes and Flamingos
88. Outside Monkey Enclosures
89. Baboon Pens
90. Cat House
91. Tiger Enclosures

94. Reindeer Enclosure
- 94a. Llamas
95. Antelope Paddock
96. Antelope Paddock
97. Waterfowl Enclosure
98. Waterfowl and Axis
99. Waterfowl Enclosure
100. Blackbuck
101. Wallabies
102. Ostrich
103. Wallabies
- 103a. Animal Enclosure

104. Pere David's Deer Paddock
105. Przewalski's Horses
- 105a. Onager
106. Arabian Gazelles
107. Guanaco
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

## Facilities

**WATERBUS.** Enjoy a trip around the Zoo. Tickets available at Waterbus Kiosk (No. 71 on plan).

**PUSH CHAIRS AND WHEELCHAIRS** can be hired near the NORTH ENTRANCE (No. 16 on plan).

**LOST CHILDREN** are taken to building No. 16 on plan.

**FIRST AID** Cloakroom (No. 8 on plan).

**TOILETS.** Invalids' Toilets (No. 8 on plan).

## Catering (subject to revision)

OAKFIELD RESTAURANT (Table Licence)—No. 61 on plan.

FOUNTAIN RESTAURANT (Party Catering)—No. 55 on plan.

CAFETERIA (Self Service)—No. 9 on plan.

MPILA SNACK BAR (Light Meals)—No. 114 on plan.

RAINBOW KIOSK (Picnic Lawn adjoining)—No. 20 on plan.

Wet weather facilities for visitors wishing to eat their own food are provided at the CORONATION HALL No. 7.

Snack Bars and Picnic Lawns are situated throughout the ZOO

## Feeding Times

LIONS—3 p.m. except Fridays

SEA LIONS—3 times daily—2.30 p.m.—3.30 p.m.—4.30 p.m.

ANIMALS MAY BE MOVED FROM TIME TO TIME

*Garrya elliptica* will soon be at its best, with long, drooping pale-green catkins. This is an evergreen shrub. One of ours is ten feet high and is growing in a large shrubbery near the Chimpanzee Islands. Also in the same area, is the tree *Paulownia imperialis*, which is showing plenty of flower-buds now and, if the winter is not too severe, will flower in the spring before the large leaves open out. The flowers are violet-blue, like large Foxgloves. *Ginkgo biloba* is nearby, which is a hardy deciduous coniferous tree with ornamental foliage, and will now have its autumn tint. Common name of this is Maidenhair Tree. Ours are 18 feet high, after being planted 24 years ago.

In the South American Garden are three shrubs of *Liquidambar styraciflua*, which have lovely shades of brilliant crimson and orange, making the tree like a pillar of fire. Ours were only planted last spring and are three feet tall. The common name of this shrub is Sweet Gum. The name *Liquidambar* comes from the Latin *Liquidus*, liquid, and *Ambar*, in reference to the gum yielded by some species.

The various species of *Cotoneaster* are covered with red berries. One of the nicest is *Cotoneaster hybrida pendula* growing on the rockeries. *Berberis thunbergii atropurpurea* has a lovely rich red foliage in the summer and turns to a brilliant scarlet in the autumn, before losing its leaves. *Berberis wilsonae* is used a lot in the Gardens as a barrier in front of enclosures but, where it is left unpruned, has pink berries and tinted leaves.

*Cornus sanguinea*, the Common Dogwood, has fire-red leaves and, when these fall off, we have a red stem for the winter. This shrub grows from six to 12 feet in height. Good groups are growing in some of the bird pens (97, 98, 99).

In the Tropical House, a group of Winter-Flowering Begonia are now staged. After the summer, the house has become thick with growth. The Ginger Lily flowered well this year, due to more light. The two groups of Banana have grown up to ten feet high this year, and we should see some fruit on them next year. *Bougainvillea* is continuing to flower. The *Hibiscus* have also grown well, and some trees are now ten feet high.

Walter Worth, *Head Gardener*

## New Polar Bears Arrive at Chester

On 20th October, 1980, our Curator of Mammals, Peter Wait, set off for Copenhagen to collect two young Polar Bears (*Thalarctos maritimus*).

He returned to Chester with the youngsters on 25th October, and they have been placed in the Polar Bear Pool (No. 50). Granada TV, along with a number of Press photographers and reporters, were at the Zoo on Monday, 27th October, to record the official "coming-out" of the two youngsters.

Mr. Wait reports that the journey from Copenhagen went very well, and that our new quarantine vehicle proved to be a most successful form of transport, qualifying with the quarantine regulations laid down by the Ministry of Agriculture. Previously, when importing or transporting stock, we have had to rely on outside firms to deal with such arrangements. This new vehicle gives us more flexibility in arranging for the moving of animals, rather than having to deal with a third party, and, by taking it on the ferry, it allows the animals to be moved from one zoo to the other with the least disturbance.

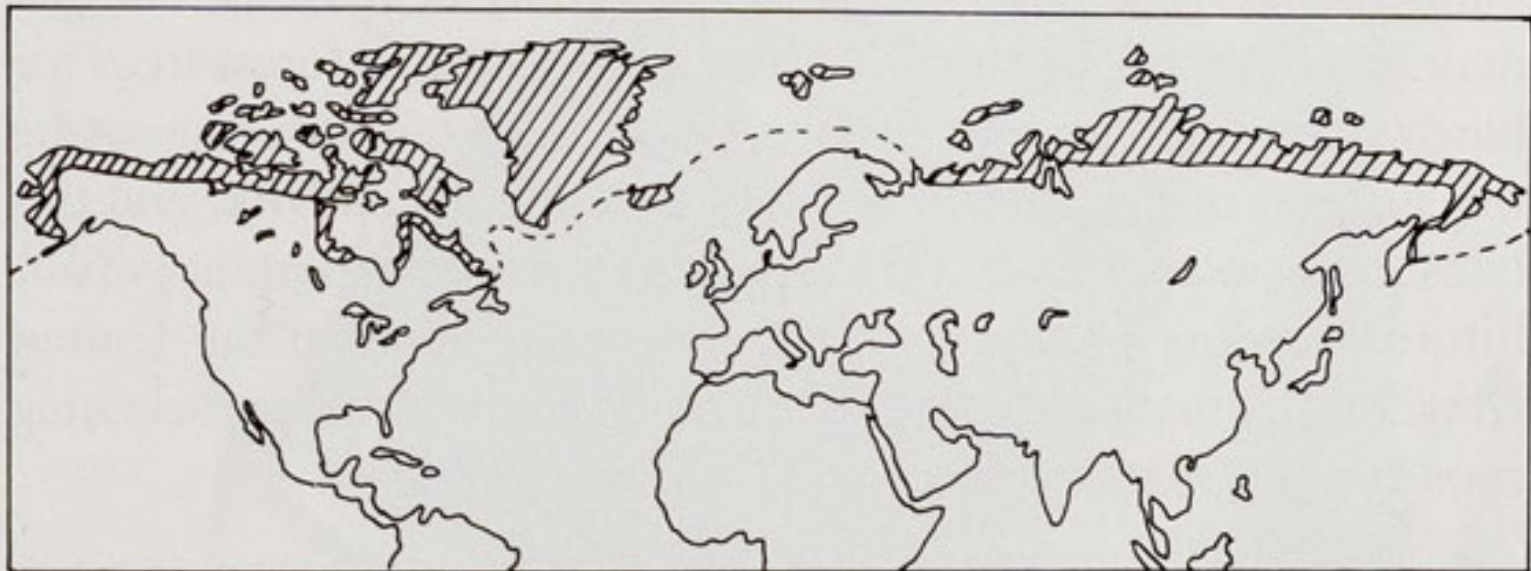
The young bears have settled down well in their new home, making good use of the spacious pool and indoor accommodation, refurbished for their arrival. The methods for emptying the pool to clean it out have been simplified and we have introduced a surface "skimmer" device, which should prevent the build-up of the green algal "flocs" which disfigured the pool in the last two years.

The male is named "Nanook" and he was born on 22nd December, 1979; the female is called "Nija" (pronounced "Niya") and she was born on 3rd January, 1980. They weigh about 70 lb.—an adult male can reach a weight of approximately 1,000 lb.

Polar Bears reach breeding age at about four years. Generally twins, weighing about 1½ lb. each, are born after a gestation period of about eight months.

A distribution map for the Polar Bear is shown on page 13. A picture of the youngsters in their new home is shown overleaf.





POLAR BEAR DISTRIBUTION MAP

## More Important Arrivals

On 5th October, a female baby Bornean Orang-utan was born at Chester Zoo. Mother and baby are both fit and well and we estimate that the baby weighed about 3 lb. at birth.

Mother "Lola" is 13½ years old and has been at the Zoo since November, 1971. This is her third baby. Father "Dennis" is 14½ years old and has been at the Zoo since April, 1968.

"Lola" is keeping the new baby—so far un-named—very close to her in the breeding accommodation in an off-show area of the Ape House.

Press and TV have shown some interest in the youngster but, due to the shy nature of these animals and their susceptibility to human infections such as colds, we have been unable to allow any Press photographs to be taken. However, as soon as they can be moved to the Orang-utan Islands, they can be viewed by members of the public and we hope to invite Press and TV to take some pictures then.

*Opposite:*

"NANOOK" AND "NIJA" IN THEIR NEW HOME

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

### **Habitat Destruction endangers 'Man of the Woods'**

Orang-utans are in grave danger of extinction in their natural habitat of Borneo and Sumatra for a variety of reasons, but due mainly to habitat destruction through the felling of forest trees for hardwood trade. Zoos are playing a most important role in ensuring the survival of this species by breeding them in captivity, and this latest baby, especially as it is a female, is of major importance in our future breeding programme. All the Orang-utans in the United Kingdom are managed as if they are one group, with the participating zoos meeting regularly to discuss plans and problems.

Orang-utan means "man of the woods" and these animals are truly arboreal in their habits, inhabiting the thick equatorial forests of Borneo and Sumatra. An adult male can weigh approximately 350 lb. and has a life-span of about 35 years. A single youngster is born after a gestation period of 8½ months: Orang-utans can breed when they are about eight years old.

At Chester Zoo we now have four male and three female Bornean and one male and one female Sumatran Orang-utans. We have already successfully bred five Orang-utans at the Zoo.

### **Birth of Male Hippopotamus**

The young male Hippopotamus, born on 30th September, has been named "Caspar" by the Keepers in the Pachyderm House. This is the eighth youngster produced by "Myra" and "General" since 1965. The baby is on view to the public and is proving to be very popular with visitors. He can often be seen in the indoor pool as he appears for another breath before swimming underwater, all the while sticking close to Mum! Our picture opposite shows him taking his first steps in the outside enclosure.

*Opposite:*  
BABY HIPPOPOTAMUS "CASPAR" TAKING FIRST STEPS IN OUTSIDE ENCLOSURE  
WITH FEMALE "MYRA"

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



---

---

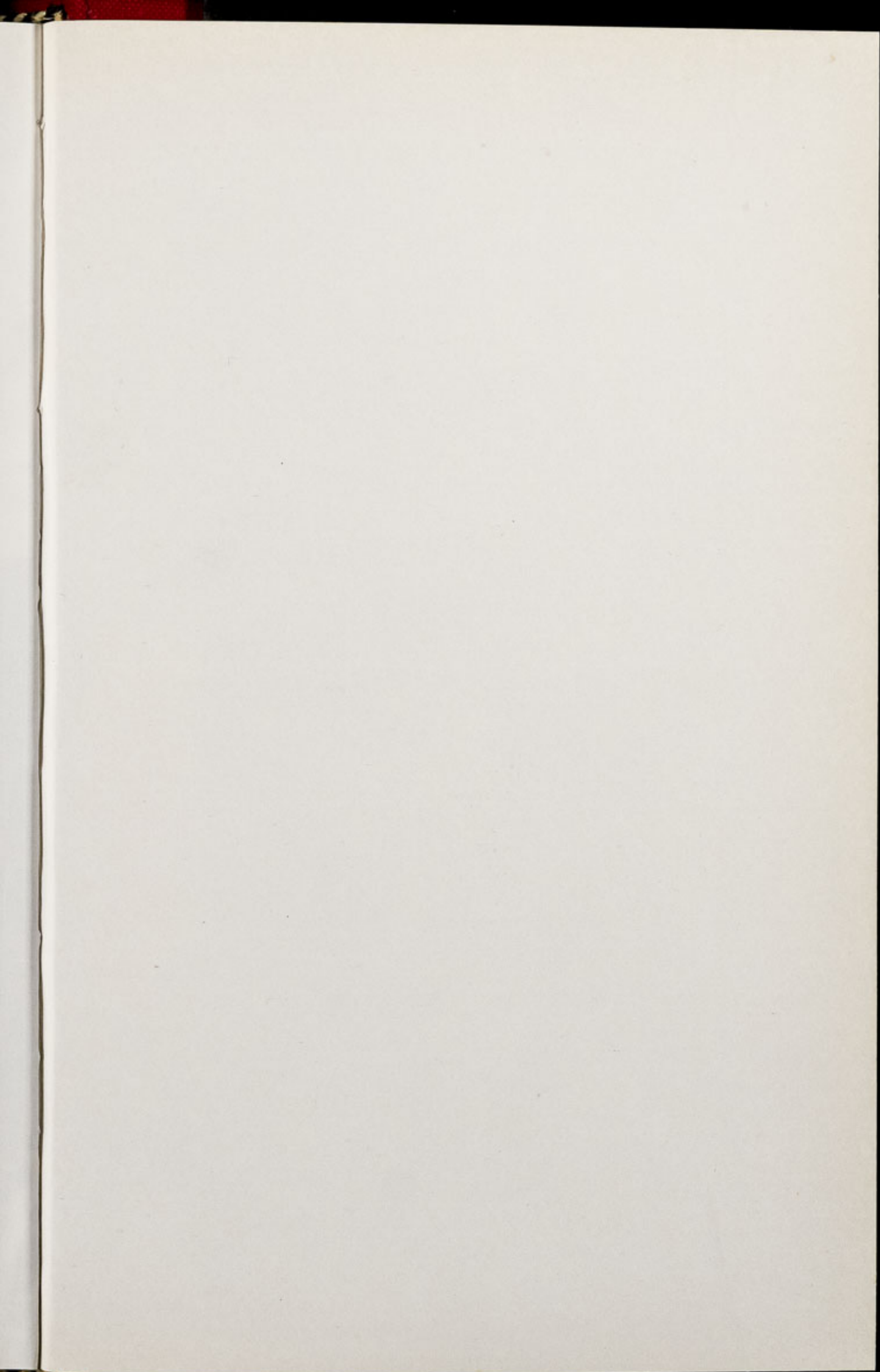
## Subscriptions

CHESTER ZOO NEWS is at present being produced every month, and readers who would like to receive the magazine regularly can obtain subscription forms at the Souvenir Shops, or the Office. The current charge for twelve issues, including postage, is £3.00 per year.

Completed forms can be handed in to the Souvenir Shops or posted to Mrs. Sandra J. Elliott, Chester Zoo News, Chester Zoo, Chester CH2 1LH.

---

---



Printed in England by  
W. H. Evans & Sons Ltd.  
Sealand Road Trading Estate  
Chester