



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

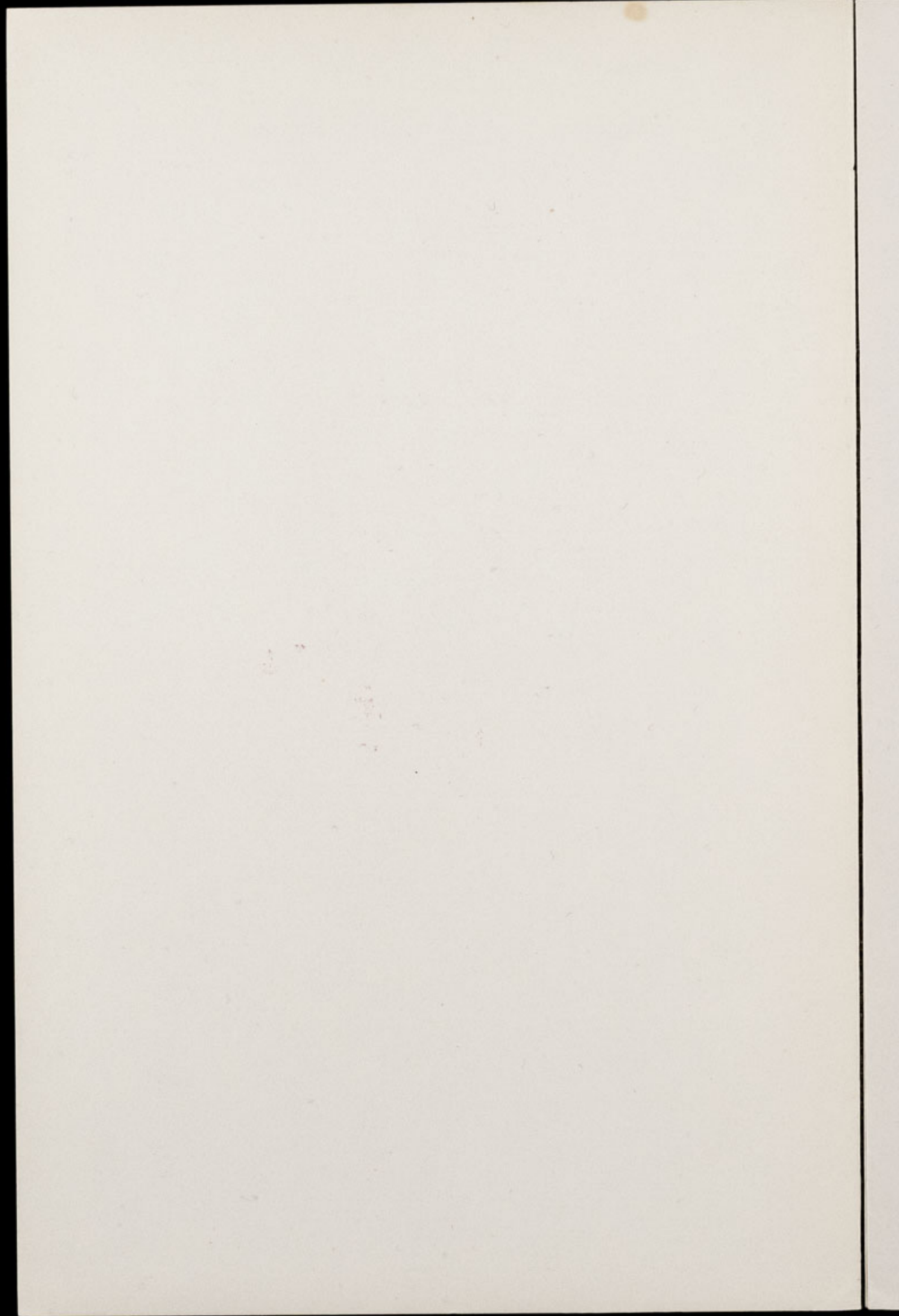
Chester Zoo News

AND GUIDE

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

December 1974

Price 6p



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

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CONTENTS:

<i>page two</i>	Arrivals and Births.
<i>page six</i>	Aquarium News.
<i>page eight/nine</i>	Zoo Plan.
<i>page twelve</i>	Reptile News.
<i>page fourteen</i>	Bird Notes.
<i>page sixteen</i>	Death of American Badger. Subscription Forms. Members' Annual Subscriptions.

ILLUSTRATIONS:

<i>page seven</i>	Young Cheetahs.
<i>page thirteen</i>	Blomberg's Toads.
<i>page fifteen</i>	Anaconda and Indian Python.

COVER: Reindeer (Rangifer tarandus); see page two.

ARRIVALS AND BIRTHS

Since the last report a second litter of three Lion cubs (*Panthera leo*) has been born. The mother of this litter is a Lioness named Annabel which was bred in a Swedish zoo in 1967 and at the age of two years came to Chester accompanied by her sister and brother.

The mother of the first litter is Annabel's sister, Ingrid, and at eight weeks old Ingrid's three cubs are now venturing outside for a few hours each day. Besides their mother, these elder cubs share their enclosure (No. 91) with the father of both litters, Kim, and a young Lioness named Kathy which was bred at Chester Zoo in 1972.

From the Monkey House comes the good news that our pair of Green Monkeys (*Cercopithecus sabaues*) has bred. Keepers have not been able to see the baby very clearly as yet because the mother is extremely protective and usually turns her back to prospective admirers. The parent Green Monkeys are two fine specimens which were acquired in January of this year.

The only other birth to report this month is that of another Red Lechwe calf (*Kobus leche*), the sixth born this year. Our herd of Red Lechwe can be seen in enclosures No. 75 and 76.

We could not think of a more appropriate subject for the cover of the December issue than the pair of Reindeer (*Rangifer tarandus*) which we acquired recently. These very attractive animals are the first Reindeer ever exhibited at Chester Zoo. They were bred earlier this year at the Norfolk Wildlife Park and are descendants of the herd which is now living in the Cairngorms. They were produced by different mothers but share the same father.

Although these Reindeer are less than a year old, neither will grow much taller than it is at present. Adult males, which are larger and heavier than the females, reach four feet high at the shoulder and weigh approximately 250 lbs.

The Reindeer is an interesting species in several ways and it has been associated with man for many thousands of years. As long ago as the last ice-age, man hunted the Reindeer for food, for clothing and leather from its hide and for a wide variety of articles from its bones, sinews and antlers. The Reindeer even provided man with his drawing materials — palaeontologists have unearthed several carvings executed on Reindeer antler. In addition this species was a favourite subject of the cave painters.

During the ice-age the Reindeer lived in Central Europe but today they are found in the tundra regions north of the Arctic Circle. Throughout this circumpolar range there is only one full species of Reindeer but numerous races are recognised. The form found in North America is called the Caribou, while the Old World and Greenland races are known as Reindeer.

In June, July and August the Reindeer are to be found far north in the tundra belt, where they feed on the sparse vegetation which flourishes in the brief subarctic summer. With the coming of the snows the Reindeer migrate southwards towards the forest belt, usually in large numbers, and there they manage to survive the winter by scratching away the snow to reach the vegetation beneath. These migrations tend to follow well-trodden routes, often demanding that the herds swim lakes or rivers and in some cases narrow sea straits between islands.

The Reindeer have evolved a number of features which enable them to exist in this hostile subarctic land. Under a top layer of stiff, tubular guard hairs, each animal has a thick coat of woolly underfur. More often than not, the surfaces over which the Reindeer

move are soft — deep snow in the winter and in the summer the marshy ground which is left by the melting snows. To assist them in travelling over such terrain, the Reindeer have developed broad, flat, deeply cleft hooves, each of which bears two "pseudo-claws". These appendages are situated at the back of the hoof and serve as an additional grip on the ground when conditions underfoot are hazardous. In summer the tundra is alive with millions of mosquitoes, the scourge of many a human visitor, but these annoying insects do not deter the hungry Reindeer from their pastures.

The colouration of this species varies. The wild populations tend to be either greyish or brownish above with white underparts, inner legs and rump. In the semi-domesticated herds of northern Europe, both piebald and white individuals are more common, the white Reindeer being especially prized. The two young animals we have acquired have very attractive pelage. Their backs are brownish rather than grey and their undersides and rumps are creamy white.

The Reindeer belong to the Cervidae but differ from all other species of deer in that both sexes bear antlers. So far it seems that the purpose of the doe's antlers is not really understood but, like the buck, she grows them each year and loses them in November after the rutting season. The antlers grow quite large and usually have two main branches. The longer beam sweeps backwards and upwards while the shorter tine projects forwards above the brow.

Mating takes place in the autumn. The adult males spar with each other for wives and the triumphant buck may acquire as many as twenty or thirty does. The young, occasionally two, but more often one, are born after a gestation period of approximately 240 days and, like the offspring of many deer and antelope, the calves are ready to move with the herd within an hour or two of birth. Apart from man, the Reindeer's chief enemy is the Wolf and any straggling calves would quickly fall prey to these alert carnivores.

The diet of the wild Reindeer consists of various tundra grasses, sedges, willow and birch leaves, lichens and some mosses. At the zoo they receive a specially formulated diet which is known simply as Diet A. This is added to a concentrate mixture prepared at the zoo and is fed to the Reindeer at the rate of 1lb. per animal twice a day. In addition the Reindeer are offered willow branches on which they can browse.

The semi-domesticated herds of northern Europe have already been mentioned. For centuries the Lapps have followed their herds back and forth to the summer pastures and, although the old traditional ways are disappearing slowly, these people still rely heavily upon the Reindeer for their livelihood. As well as using all parts of the slaughtered animals — flesh, hides, bones and antlers — the Lapps keep Reindeer for milk which is processed into butter and cheese; also, selected animals are trained to pull sledges.

In North America also, the species has been a vital source of food and clothing for the peoples of the far north. However, the Eskimoes have not attempted to manage the deer in the way that the Lapps have done and instead have been hunters. Until not very long ago, the herds of Caribou in Canada and Alaska were vast. Observers have reported that migrating animals took days to pass and were a truly amazing sight. Although they can still be counted in thousands, the numbers of Caribou are now much reduced. In the past few years they have figured prominently in the controversy surrounding the proposed route of the Alaskan Pipe Line which cuts across their migration path.

Although Reindeer have adapted successfully to life in their home range, over the years it has been realised that they are difficult subjects to maintain in captivity. The grassland of the temperate zone appears to be too rich for them and as a result many specimens have survived in zoos for only a short time. We have been advised that the solution is to keep the Reindeer on gravel and hardcore paddocks and accordingly our two young animals have been accom-

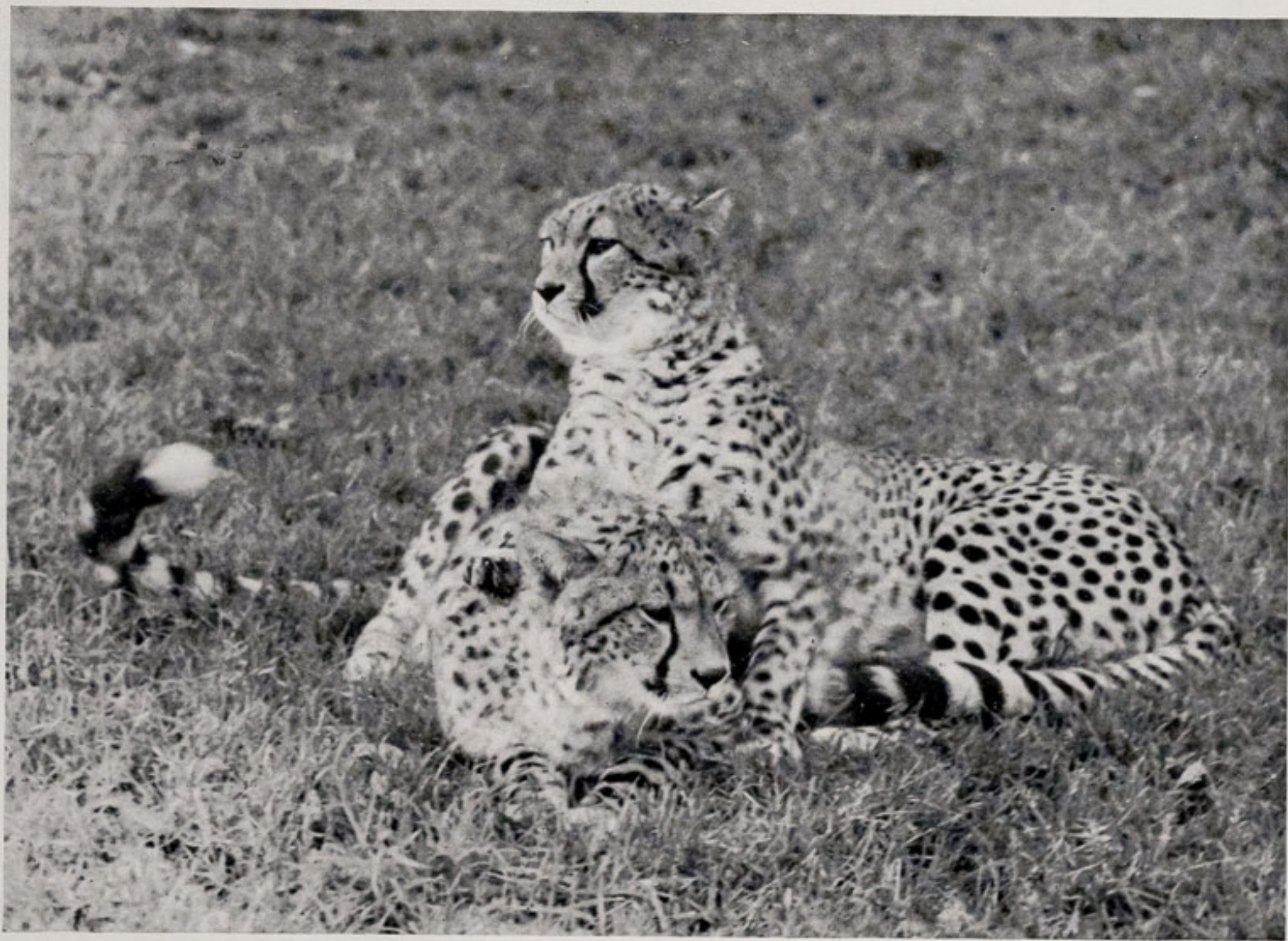
modated in one of the new enclosures (No. 103) which has been surfaced in this manner. Here they have access to indoor quarters and we are pleased to report that both are progressing very satisfactorily.

Two other additions to the collection are shown in the photograph on page ten. We were delighted when we learned earlier this year that we were to receive a pair of young Cheetahs (*Acinonyx jubatus*). Both cats were born just over a year ago, in October 1973, and, neither has quite lost the mane which is characteristic of the Cheetah cub.

The new-comers have been accommodated in enclosure No. 70 which is directly across the pathway from the home of our resident pair of Cheetahs and their proximity has sparked a mutual curiosity. The elder pair arrived here together in December 1967 and were believed then to be approximately one year old. Regrettably they have never bred. However, once we are satisfied that the young Cheetahs have settled down in their new home, we propose to try other combinations of the four cats which eventually it is hoped will stimulate breeding.

AQUARIUM NEWS

The White Cloud Mountain Minnow (*Tanichthys albanobes*) is among several species bred in the Aquarium since our last report. At the present time, several hundred of these fry are being reared off show in nursery tanks. This particular fish, which originated from China, breeds fairly readily in aquariums but the parents are inclined to eat the fry. In order to limit predation, the adult pair were transferred to a small tank where they were allowed to spawn. The eggs of the White Cloud Mountain Minnow take from twenty-four to forty-eight hours to hatch and, as soon as the fry began to emerge, the parents were returned to their exhibition tank.



YOUNG CHEETAHS (*Acinonyx jubatus*)

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

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

- 1. SOUTH ENTRANCE
- 2. Peacock Enclosure
- 3. Wapiti Paddock
- 4. Lesser Pandas
- 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. RAINBOW CAFE AND SHOP
- 21. Aviaries and Picnic Lawn
- 22. TOILETS
- 23. Tuatara Exhibit
- 24. Peccaries
- 25. Waterbus Halt
- 26. Birds of Prey Aviaries
- 27. Condor Aviary
- 28. Jackal and Hyaena Enclosures
- 29. Animal Enclosure
- 30. Porcupine Enclosure
- 31. Coypus
- 32. Beavers
- 33. Giraffe House

- 34. Camel House
- 35. Waterbus Halt
- 36. TROPICAL, NOCTURNAL AND 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. Gazelles
- 47. Penguins
- 48. Sealions
- 49. Rock Garden
- 50. Polar Bears
- 51. Tigers
- 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. Gibbon Pen
- 64. Animal Enclosure
- 65. Cheetahs
- 66. Ornamental Rock Garden
- 67. Malayan Bears
- 68. Animal Enclosure
- 69. Aviary
- 70. Wallabies
- 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. Lions and Tigers

- 92. Antelope and Ostrich
- 93. Antelope Enclosure
- 94. Antelope Enclosure
- 95. Zebras
- 96. Llamas
- 97. Waterfowl Enclosure
- 98. Wallabies and Waterfowl
- 99. Waterfowl Enclosure
- 100. Blackbuck
- 101. Wallabies
- 102. Animal Paddock
- 103. Animal Paddock
- 104. Animal Paddock

under construction

- 105. Proposed New Bear Enclosures
- 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.

In another nursery tank about eighty Marbled X Common Angelfish (*Pterophyllum sp.*) are being reared. The parent fish are the same two specimens from which some twenty fry were obtained in August. Most of the earlier batch were reared and a week ago these young Angelfish were transferred to the exhibition tank. They display a moderate degree of marbling but one curious feature which has emerged in all the offspring is an enlarged dorsal fin. We are now interested to see if the second brood develops this unusual characteristic.

Four Celebes Rainbow Fish (*Telmatherina ladigesii*) have also been bred. We are extremely pleased with this success because the species is not bred easily. The females tend to lay a few eggs at a time over a long period but the Celebes Rainbow Fish is another spawn robber. Fortunately the Aquarium keeper detected the eggs quickly and was able to remove them from the main tank. They were hatched successfully and the young fish are growing satisfactorily in a nursery tank. The adult Celebes Rainbow Fish have been in the collection for less than four months. Their arrival and a brief description of the species appeared in the September issue of the Zoo News.

In the September issue also we reported the hatching of one hundred and fifty Red Devil Cichlids (*Cichlasoma erythraeum*). These young Cichlids have now grown sufficiently to be put on exhibition in one of the large community tanks. In the meantime the Red Devil Cichlids have laid more eggs, from which another hundred fry have been obtained. The latest brood has reached half an inch in length.

Lastly, a large number of Australian Rainbows (*Melanotaenia sp.*) and between twenty-five and thirty Girardinus (*Girardinus metallicus*) have been bred.

New additions to the Aquarium stock include a number of

young Congo Salmon (*Micralestes interruptes*). These have been introduced into the tank which accommodates several adult specimens of this species.

The only arrival in the tropical marine section has been a Ribbon Eel. When acquired, the Eel was bluish in colour but after a few days in the tank its body became almost black. Now it resembles very closely the Ribbon Eel (*Rhinomuraena quaesita*) which was in the collection a short while ago. The new specimen is both longer and stockier than the earlier Ribbon Eel but displays a similar bright yellow dorsal fin. It settled down quickly and showed no hesitation in feeding.

Readers may recall that a few months ago we were successful in breeding the Dwarf Rainbow Cichlids (*Pelmatochromis kribensis*). Within the past month the adult fishes have been moved to a larger tank, where they have now been joined by their offspring. Their new home is furnished with upturned plant pots under which the Dwarf Rainbow Cichlids spawn and several adult pairs are attempting to breed once again.

One of the most popular exhibits in the Aquarium is the freshwater Sting Ray. This impressive South American specimen was acquired well over a year ago and is still thriving. On arrival it was estimated to be approximately twelve inches long and eight inches wide. It has grown considerably over the past fourteen months and must be at least half as big again. Its colouration has altered also. In the September 1973 issue we described the upper surface of the Sting Ray's flat, disc-shaped body as pale orange with light greyish-blue mottling. The areas which were orange are now light brown and the mottling has become deep brown in colour.

The Sting Ray bears a long poisonous spine on its tail and recently the old spine was replaced by a new one. The replacement grew below the old spine and when it had reached the same length as the old spine, the latter dropped off.

REPTILE NEWS

In the April 1974 issue we mentioned that a newly arrived pair of Bahaman Boas (*Epicrates striatus*) had been observed mating. We are delighted to report that this female gave birth recently to fifteen young. Three of the baby snakes died almost immediately but, at the time of writing, the remaining twelve are a month old and are progressing very satisfactorily. They are being reared in a special vivarium which is off show to the public and they will not be transferred to the exhibition area for several weeks yet.

Two very interesting arrivals have been put on exhibition with the Marine Toads (*Bufo marinus*). They are two Blomberg's Toads (*Bufo blombergi*) and they can be seen in the illustration on the right. This species is known also as the Colombian Giant Toad and, with a body length of nine inches, it is quite probably the largest member of its family.

The Blomberg's Toad lives in the Andean foothills of southwestern Colombia, virtually on the equator. However, the literature available about this amphibian is scanty, one reason being that it was not discovered until 1951. It is an attractive species, having a beige-brown back and blackish-brown sides, legs and under-surface. Blomberg's Toads are reported to become quite bold in captivity and accordingly we found that our two specimens overcame their initial shyness and soon began to show themselves in the vivarium. One toad is slightly larger than the other but we estimate that both are approximately half-grown. They are feeding well on a diet of young rats and mice and we have every hope that they will thrive in this collection.

Other new arrivals have included two very attractive Thailand Water Dragons (*Physignathus cocincinus*) which have been put on exhibition in the large tortoise enclosure. This particular enclosure is furnished with a number of tall rubber plants, the aim being to create interest on two levels — the tortoises and terrapins on the ground and lizards above ground in the branches of the plants. Until a few weeks ago the tortoises were sharing their enclosure with ten Solomon Island or Prehensile-tailed Skinks (*Corucia zebrata*).



BLOMBERG'S TOADS (*Bufo blombergi*)

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

Unfortunately these reptiles wrought extensive damage to the rubber plants and we were obliged to create a more substantial display of oak branches for them in the Rhinoceros Iguana vivarium. The Thailand Water Dragons were considered more suitable subjects for the tortoise enclosure and visitors can now see these large green lizards climbing about in the rubber plants.

In the October issue we mentioned that the Anaconda (*Eunectes murinus*) had been removed from its enclosure while the Curator of Reptiles made some alterations to the pool. This work has now been completed and the snake returned to the extended and deepened pool, which it seems to appreciate. While the Anaconda was off show, we took the opportunity of photographing its tremendous girth and the result can be seen on the right. The smaller specimen is an Indian Python (*Python molurus*) which measures approximately two feet in length and this should give readers some conception of the size of the larger snake.

BIRD NOTES

Now that the breeding season has drawn to a close, checks have been made on the numbers of birds in various aviaries and we have ascertained that an additional eleven Fischer's Lovebirds (*Agapornis fischeri*) and two Peach-faced Lovebirds (*Agapornis roseicollis*) were bred during the summer. A count in the Cockatiel aviary (*Nymphicus hollandicus*) has revealed a total of approximately 106 chicks reared this year. This represents an increase of twenty-five on the number of Cockatiels bred in 1973. Within the past few weeks a third Indian White-eye (*Zosterops palpebrosa*) has also left the nest.

All recent arrivals in the bird section have been presentations. Another pair of very beautiful Ringed Teal (*Anas leucophrys*) have been received and these have been released in waterfowl enclosure No. 85.

Two young Sonnerat's Jungle Fowl (*Gallus sonnerati*) which



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

ANACONDA (*Eunectes murinus*) WITH INDIAN PYTHON (*Python molurus*)

were donated are being reared in one of the Temperate Bird House aviaries, in company with some immature Red Jungle Fowl and Peafowl. The Sonnerat's is one of the more colourful of the Jungle Fowl and comes from the forests of western and southern India.

DEATH OF AMERICAN BADGER

Since our last report the old male American Badger (*Taxidea taxus*) has died. We were especially sorry to lose him because he had been at the zoo for many years. He came to us from Calgary Zoo in September 1957, which means that he must have been at least seventeen years old when he died.

SUBSCRIPTION FORMS

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 shop. An annual subscription (12 issues) costs £1.15, postage paid, which can either be handed over the counter at the shop or posted with the completed form to the Director-Secretary, Chester Zoo, Chester.

MEMBERS' ANNUAL SUBSCRIPTIONS

We would like to remind Members of the Society that their annual subscriptions fall due on the 1st January 1975. If Members will pay their subscriptions promptly or inform us immediately if it is their intention to resign, this will help us considerably to keep down postal costs.

WE WOULD LIKE TO WISH ALL OUR READERS
A VERY MERRY CHRISTMAS
AND A PROSPEROUS NEW YEAR.

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.

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

THE UNIVERSITY OF CHICHESTER

DEPARTMENT OF ARTS AND SOCIAL SCIENCES

STUDENT RECORD

Name: _____
Matriculation Number: _____

Year of Admission: _____
Date of Birth: _____
Place of Birth: _____

Course of Study: _____
Date of Graduation: _____
Degree Awarded: _____

Signature: _____
Date: _____
Official Use: _____

Remarks: _____

Printed Name: _____
Title: _____

Signature: _____
Date: _____
