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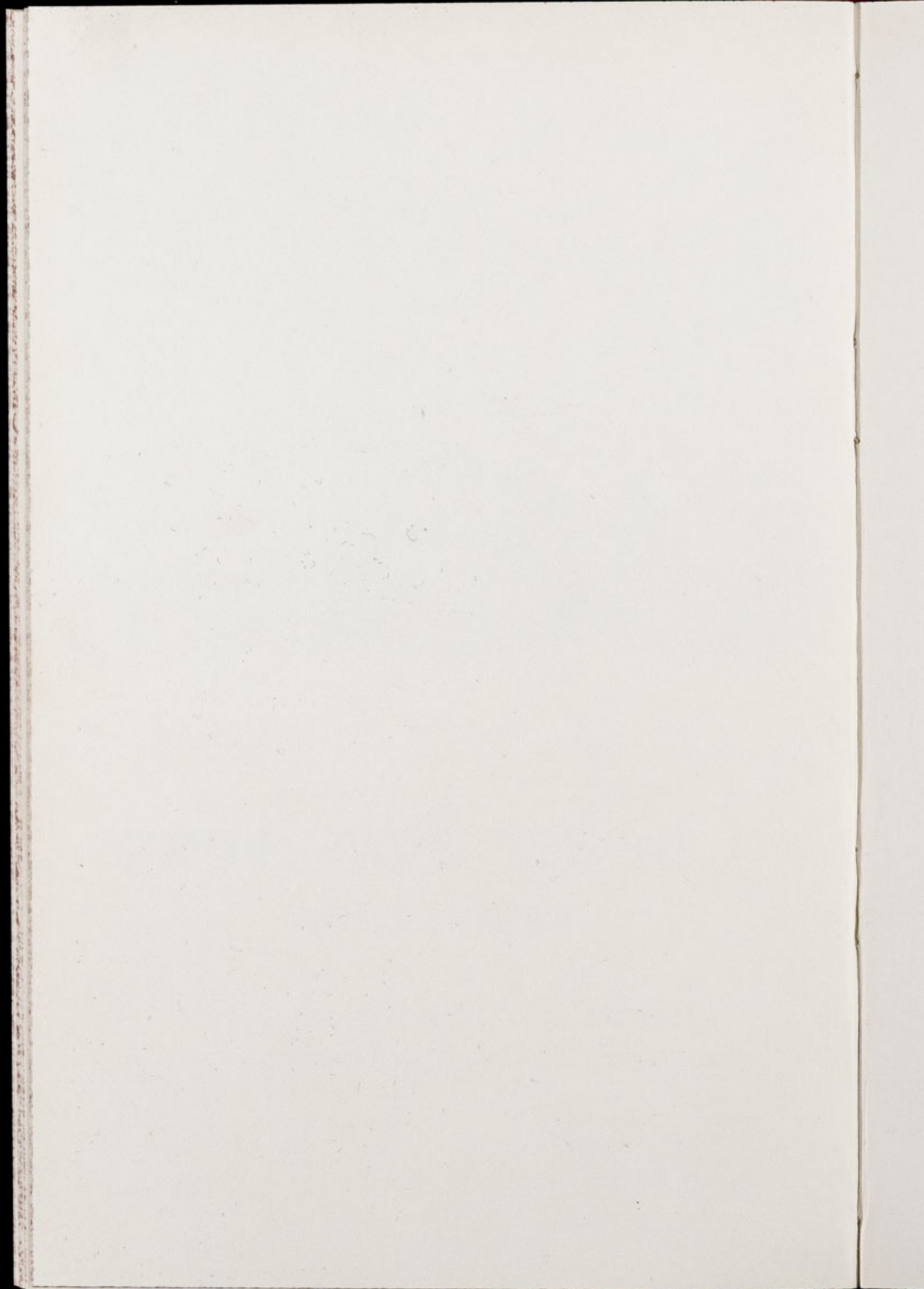
Chester Zoo News

AND GUIDE

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

September 1971

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The North of England Zoological Society

ZOOLOGICAL GARDENS, UPTON-BY-CHESTER

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ANNUAL SUBSCRIPTION — NINETY FIVE NEW PENCE POSTAGE PAID

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ARRIVALS AND BIRTHS

During the past month the following mammal births have been recorded:

- 2 Spiny Mice (*Acomys cahirinus*)
- 3 Genets (*Genetta tigrina* X *Genetta tigrina fieldiana*)
- 2 Common Leopards (*Panthera pardus*)
- 2 Nilgai (*Boselaphus tragocamelus*)
- 1 Sykes Monkey X Moloney's Guenon
(*Cercopithecus a. albogularis* X *Cercopithecus a. moloneyi*)

The two young Spiny Mice are on exhibition in the Nocturnal House. This species has a distribution in Africa and S.W. Asia and the gestation period is about 38 days. Usually litters contain two to three young which are born fully furred and with their eyes open.

We are extremely pleased to report the births of the three Genets. As we mentioned in an earlier issue, the mother, a Forest Genet, was mated with a Blotched Genet. She built her nest in a log. For several days only one youngster was seen to leave the nest and then to our delight, two more appeared. The Forest Genet, which in the wild state is found in West Africa, may be seen with her young in the Small Mammal House.

As usual the two new Leopard cubs will not be on view to the public for several weeks. The earlier Leopard cubs and the Puma cubs, one of which is the subject of this month's cover, were vaccinated recently and we were able to ascertain their sexes — one male and one female Leopard and two male and one female Puma. Incidentally, we now have a grand total of 20 Leopards, including four Amur and three of the black form, and 10 Pumas, many of which were bred at the Zoo.

The Nilgai calves are twins, a normal occurrence with this species. All the Nilgai herd, including the male born last year, may be seen in enclosure No. 109.

The birth to the Moloney's Guenon is very pleasing as these Central African monkeys are uncommon exhibits. The female came to the Zoo in 1967 and has bred for the first time.

THE SOUTH ENTRANCE ROCK GARDEN

The site on which this rock garden has been constructed was planted with some very old Willow trees and Laurels, etc., and at an earlier period had been used as a Flamingo enclosure. For some years it had been our intention to develop the site, but due to the rapid expansion of the Zoo which involved landscaping all the new areas, there was not sufficient time available.

However, during the latter part of 1967 and early 1968, the Zoo was closed to the public for a period of 10 weeks whilst Foot and Mouth disease was prevalent in Cheshire. We took advantage of this opportunity to construct the rock garden. The whole site was cleared, with the exception of one Turkish Oak and one Lime Tree, both of which were worth saving. In order to build the garden, it was necessary to transport a large quantity of soil to the site. One can appreciate just how much was needed when one considers that before work commenced the area was three feet below road level and was raised to such an extent that at the highest point it is now nine feet above the road. Fortunately at that time ahas were being excavated for a new Zebra enclosure and the soil removed from these was employed in the construction of the rock garden, clay being used for filling all the bottom of the area with two feet of soil on top.

Before a start could be made with transporting the soil to the new site, the waterfalls and pools were constructed, being built on a firm base to prevent any cracking in the walls with the subsequent loss of water. A start was made on this work in mid-November and the landscaping proceeded with at every opportunity that the weather offered, as on several occasions there were delays because of heavy rains and snowfalls. The aim was that the rock gardens should be finished and planted by the spring of 1968 and in fact this was the case, planting being completed in early May of that year.

As a background for the garden we planted a row of *Cupressus leylandii*. This quick growing *Cupressus* has already reached a height of 10 to 12 feet and has effectively done the job for which it

was introduced. A selection of trees, deciduous and evergreen, were planted at the back of the waterfall with a collection of Camellias on the banks at each side. Various *Chamaecyparis* were also provided and dotted over the whole area to give height, which is necessary on an area of this size. Also planted was an interesting collection of alpine conifers, Golden Yews, etc., and of particular note are the two specimen trees of *Metasequoia glyptostroboides*. This tree was extinct but the seeds were found embedded in rock in China some 20 years ago and were germinated. Since then it is amazing how widely distributed the tree has become.

A part of the rock garden was set aside for the planting of Heathers and 1,000 plants were used, made up of varieties which give flower throughout the year. Outstanding of these are H. E. Beale and Gold Haze, the latter having pure white flowers and golden foliage. In addition to the Heathers over 3,000 alpine plants were required to complete plantings. These are far too numerous to name individually but visitors can note those of particular interest, as all are labelled in at least one group of planting.

We are always adding to the variety of plants; soon we hope to introduce *Dierama* (Fairies' Fishing Rods) by the waterfall and some groups of *Rhodohypoxis*. This is a lovely little plant but it needs a little protection during the winter months.

The whole garden has been planted with alpine bulbs, i.e. miniature Daffodils and species, Tulip species, miniature Iris, Muscari, Scillas, Crocus, Asiatic Hybrid Lilies, etc. A rock garden planted with true alpiners is mainly a spring garden and to counteract this and to give a continuation of flower throughout the summer months we have introduced a collection of dwarf flowering shrubs including some of the *Hypericums*'s, *Rhododendrons*, *Azaleas*, *Veronicas*, *Potentillas*'s, etc. Also planted for this purpose are varieties of *Mesembryanthemum* and *Gazaneas*, these being propagated from cuttings each year.



SOUTH ENTRANCE ROCK GARDEN

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

BIRD NOTES

The photograph on the right shows one of the latest hatchings in the Bird Section, a Common Rhea chick (*Rhea americana*) at three days old. The parents of this bird arrived in the collection in September last year as part of an exchange with Montevideo Zoo and subsequently were introduced to two other Rheas which were living in one of the spacious waterfowl enclosures.

The range of the Common Rhea is from Brazil to Argentina where for most of the year the birds associate in flocks on the pampas grasslands, feeding on a diet of vegetation, insects and small vertebrates. Rheas are distantly related to Ostriches but are much smaller, attaining an average height of only five feet.

After courtship displays, a single cock mates with several females. He builds the nest which is a scrape in the ground lined with grass and once the females have deposited their eggs, their participation in the breeding is completed. The male is solely responsible for hatching and rearing the chicks, incubation lasting for about 40 days. The size of the clutch varies, depending on the number of females which have contributed but an average nest would contain eight to ten eggs. These are creamy white and measure from six to seven inches long.

At the Zoo the male built his nest in a patch of long grass in a secluded part of the enclosure. His plumage blended well with the grass and when his neck was laid flat along the ground he was camouflaged most effectively. When the chick was hatched we decided to remove it for hand rearing at the Bird Hospital. For the first day it did not require food as it was nourished sufficiently from the yolk sac. Unfortunately its first attempts at pecking were rather poor so, to set an example, several young chickens were introduced to the pen. The young Rhea soon got the idea and since has been feeding well on a diet of chopped fresh grass, cabbage, hard boiled egg, minced meat and rearing food.

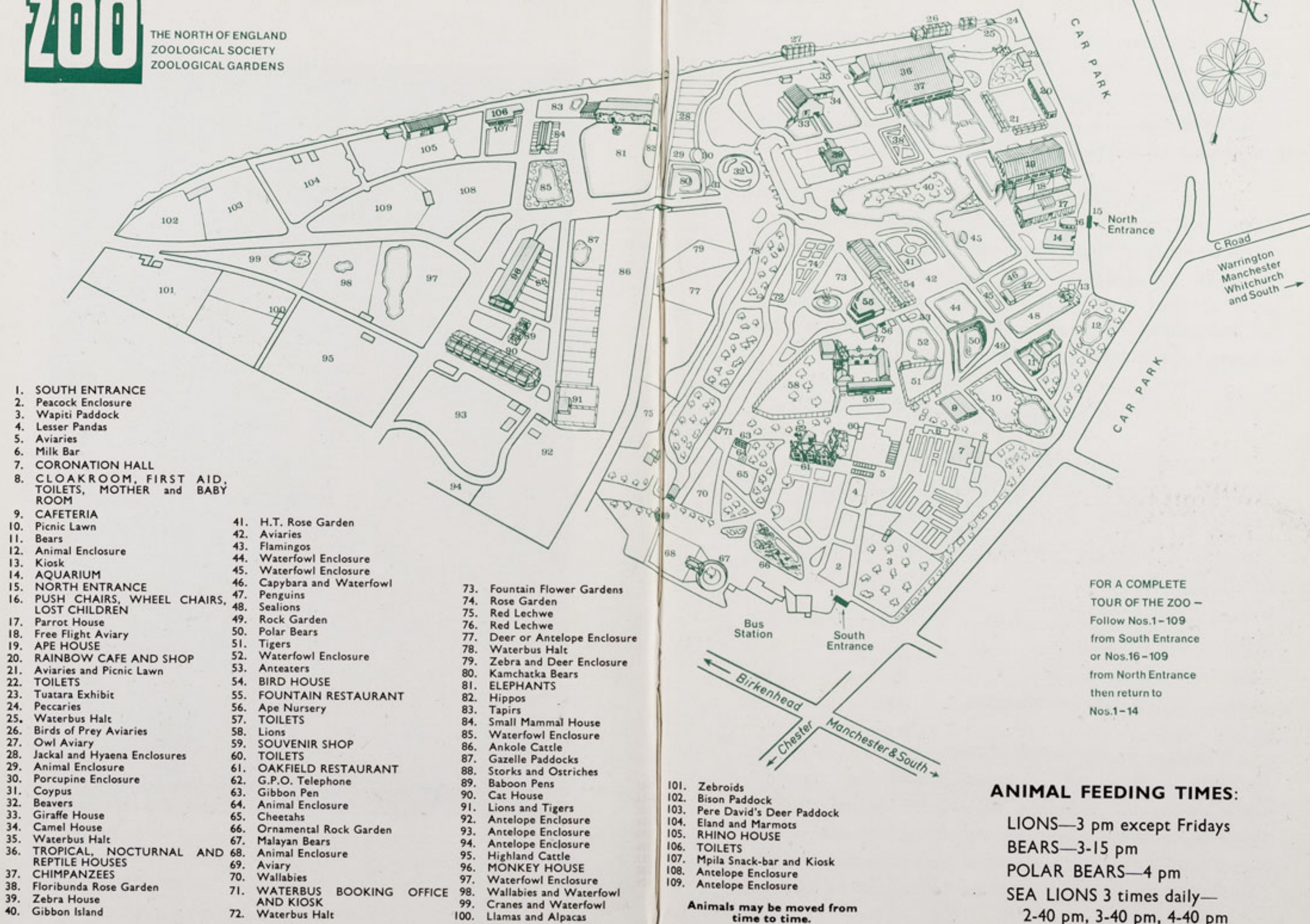


RHEA CHICK (*Rhea americana*)

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

CHESTER ZOO

THE NORTH OF ENGLAND
ZOOLOGICAL SOCIETY
ZOOLOGICAL GARDENS



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. Animal Enclosure
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. Owl 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. Zebra House
40. Gibbon Island

41. H.T. Rose Garden
42. Aviaries
43. Flamingos
44. Waterfowl Enclosure
45. Waterfowl Enclosure
46. Capybara and Waterfowl
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. G.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. Gazelle Paddocks
88. Storks and Ostriches
89. Baboon Pens
90. Cat House
91. Lions and Tigers
92. Antelope Enclosure
93. Antelope Enclosure
94. Antelope Enclosure
95. Highland Cattle
96. MONKEY HOUSE
97. Waterfowl Enclosure
98. Wallabies and Waterfowl
99. Cranes and Waterfowl
100. Llamas and Alpacas

101. Zebroids
102. Bison Paddock
103. Pere David's Deer Paddock
104. Eland and Marmots
105. RHINO HOUSE
106. TOILETS
107. Mpila Snack-bar and Kiosk
108. Antelope Enclosure
109. Antelope Enclosure

Animals may be moved from time to time.

FOR A COMPLETE TOUR OF THE ZOO - Follow Nos.1-109 from South Entrance or Nos.16-109 from North Entrance then return to Nos.1-14

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

The chick stands about eight to nine inches high and has tawny and cream coloured down. During the first days it was rather unstable on its legs, toppling over with almost every movement and frequently landing on its rump, but now it is becoming steadily more confident and curious.

Another very pleasing breeding is that of a Grand Eclectus Parrot (*Lorius loratus*) which left the nest in the middle of August. The chick is a female and has been removed from the aviary as the parents are showing signs of breeding again.

Presentations include a Rüppell's Parrot (*Poicephalus rüppellii*), a species found in South West Africa.

GERBILS

During the course of a year we receive many requests for information from pet owners and among the most frequent are enquiries about Gerbils. We have a thriving colony of these animals at the Zoo and feel that an article about their habits and breeding will not be amiss.

The Mongolian Gerbil (*Meriones unguiculatus*) is a rodent native to north eastern China and eastern Mongolia. It is a member of the same family as the Hamster, all members of the subfamily Gerbillinae being called Gerbils.

There are some fifty species of Gerbil found in many parts of the world, generally in dry, hot, sandy areas. The Mongolian Gerbil was first seen in Europe in 1867 when the Museum of Natural History in Paris received some from Père David, who acquired them during a collecting trip in what was then called "La Mongolie Chinoise". Incidentally, Père David also "discovered" the species of

Deer known by the same name, a herd of which can be seen at the Zoo. At first, Gerbils were imported as laboratory animals and were used for research on many diseases, including tuberculosis and rickets. Gerbils are still used in laboratory work but, because of their lovable and placid dispositions, they have been adopted as pets and have been bred extensively for this purpose.

Mongolian Gerbils have much to recommend them as pets. They require little attention and can be left for days unattended, provided ample stocks of food and water are available. Unlike most rodents, they will not over-eat or bury food in their nests. They drink very little and some breeders do not offer water at all, feeding a little green vegetable every day instead. We give water, vegetables and fruit so that the Gerbils have a choice. In our view, nursing females should have access to water at all times.

Gerbils sleep a great deal but when awake indulge in bursts of activity, scratching vigorously at the sides of their cages and gnawing twigs which are given to keep the mandibular incisors from over-growing. In no circumstances should twigs from evergreen trees be given, as these are poisonous. Gerbils are most active during the late afternoon and usually matings take place around 5 pm. We find the best nest site can be made from small-sized rocks piled up to form a small cave into which the Gerbils will build their nest. Soft hay should be provided as bedding.

Litters are born 24 to 26 days after mating. Normally birth occurs during the night and a litter of six or seven is usually delivered in an hour. At birth Gerbils are naked, deep red in colour and their eyes and ears are closed. A few hours after birth they move very strongly and utter small cries. Sometimes they fall out of the nesting cave or may be dragged out by the female, attached to her teats. We have found that when this happens the adult Gerbil will carry them back into the nest in a rather haphazard manner.

The ears open at five days and the teeth begin to show by the 12th or 13th day. The eyes do not open until the 20th day and it is not unusual to see young animals, eyes still closed, running around the cage. Fur begins to show by the sixth day and the young Gerbils are well covered when their eyes open. Figure 1 on the right shows baby Gerbils at twelve days old.

On the 22nd day the young must be removed from the female, which in most cases will produce another litter three days later. Normally Gerbils mate soon after each litter is born.

Figure 2 shows a young Gerbil at two months old. Young males are capable of breeding by the age of ten weeks, females between nine and twelve weeks of age. The sexes should be separated before the ninth week. Litters vary in size from one to ten babies but six or seven is a rough average. Growth is very rapid, particularly between the ages of two and three weeks. Gerbils may continue to reproduce up to the age of two years but there is no uniformity of fertility.

Our Gerbils are fed on a mixed diet of chopped apple, carrot, potato, grass with roots, bread, grain, bird seed, tomato, sunflower seed, dandelion leaves, etc. Cheap seed and grain should not be purchased in case it has been contaminated by wild rodents or insecticide. Also, some breeders feel that too great a proportion of sunflower seeds causes infertility.

The Gerbil's habit of scratching at the sides of its cage worries some Gerbil keepers, but when one stops to consider that in the wild the Mongolian Gerbil constructs underground chambers which it reshapes continually, the scratching habit is obviously instinctive and harmless. At the Zoo the Gerbils on exhibition are accommodated in the Nocturnal House where we have provided surroundings as near as possible to those found in the natural state.



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

GERBILS AT 12 DAYS OLD (*Meriones unguiculatus*)



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

GERBIL AT 2 MONTHS OLD (*Meriones unguiculatus*)

The enclosure is covered with a layer of sand which in parts is about two feet deep, in which the Gerbils have formed natural burrows. Visitors can observe them looking out of the burrows just as they would in the wild state.

Figure 3 is an illustration of an adult Mongolian Gerbil, its back foot showing clearly the black claws which are a distinguishing characteristic of this species.

Figure 4 shows one of the largest species, the Indian Gerbil or Antelope Rat. This animal is not recommended as a household pet as it is rather nervous and tends to bite.

REPTILE NOTES

From the Reptile Section we have two very pleasing events to report. During the past month both Leopard Geckos and Texas Ratsnakes have been hatched.

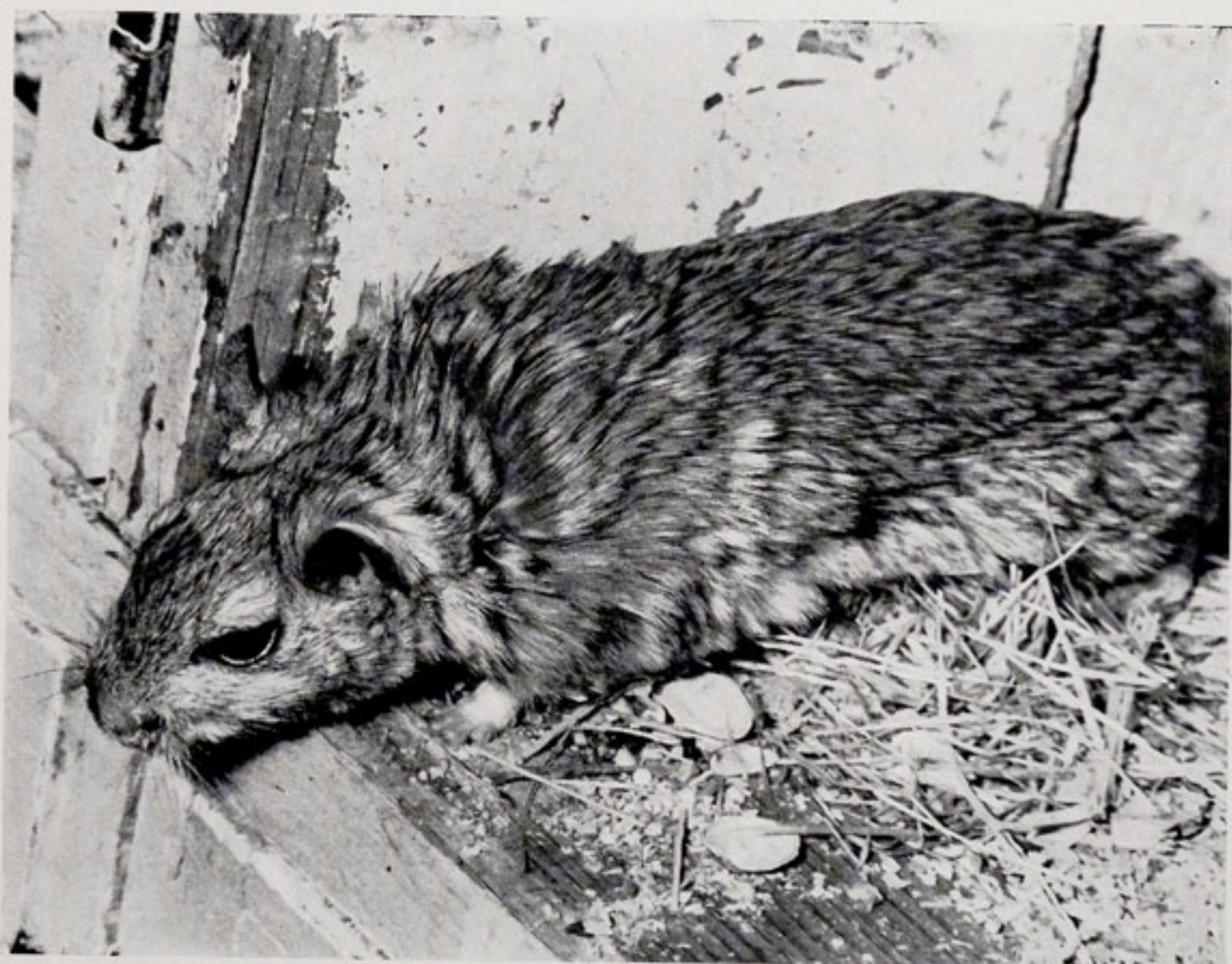
Geckos belong to an extensive family of lizards found in many parts of the world. In the same vivarium as our pair of Leopard Geckos (*Eublepharis macularis*), which arrived at the Zoo in 1967, we also exhibit the largest species, the Tocko Gecko (*Gecko gecko*). Leopard Geckos are found in India and Pakistan and, as their name suggests, have yellowish bodies with a patterning of black spots.

As yet only two young have hatched, though in all the Leopard Geckos laid four eggs, depositing a second clutch of two several weeks after the first. The eggs were buried in a mound of sand in the corner of the vivarium and the young Geckos hatched within 48 hours of each other, incubation lasting for about seven weeks. They have been put on show in a small glass tank at the front of the Gecko vivarium. The young measure only two to three inches long and have yellow and black markings on the back and tail and pinkish under-



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

ADULT MONGOLIAN GERBIL (*Meriones unguiculatus*)



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

ADULT INDIAN GERBIL OR ANTELOPE RAT (*Tatera indica*)

sides. At the moment they are being fed twice a week on small locusts, known as hoppers, and are looking extremely healthy. This is not the first time the Leopard Geckos have bred in the collection as in 1967 they produced young, which unfortunately did not live.

A total of nine Texas Ratsnakes (*Elaphe obsoleta lindheimeri*) has been hatched. The eggs were removed from the vivarium soon after being laid and were incubated for ten weeks in a bed of sphagnum moss which was moistened periodically. On hatching, the snakes have sufficient food in their yolk sacs to sustain them for several days, the first food we offer them being pink mice. Last year these snakes bred here for the first time, producing a brood of seven, all of which lived and were sent eventually in exchanges to other collections.

A very fine Emerald Tree Boa (*Corallus caninus*) has been presented to us by Lincoln Park Zoo, Chicago. It has now settled down in the vivarium and is feeding well.

SUBSCRIPTION FORMS

New readers of the '*Chester Zoo News*' who would like to receive the magazine regularly may like to know that subscription forms are on display in the souvenir shops. An annual subscription (12 issues) costs 95p postage paid, which can either be handed over the counter 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.

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

