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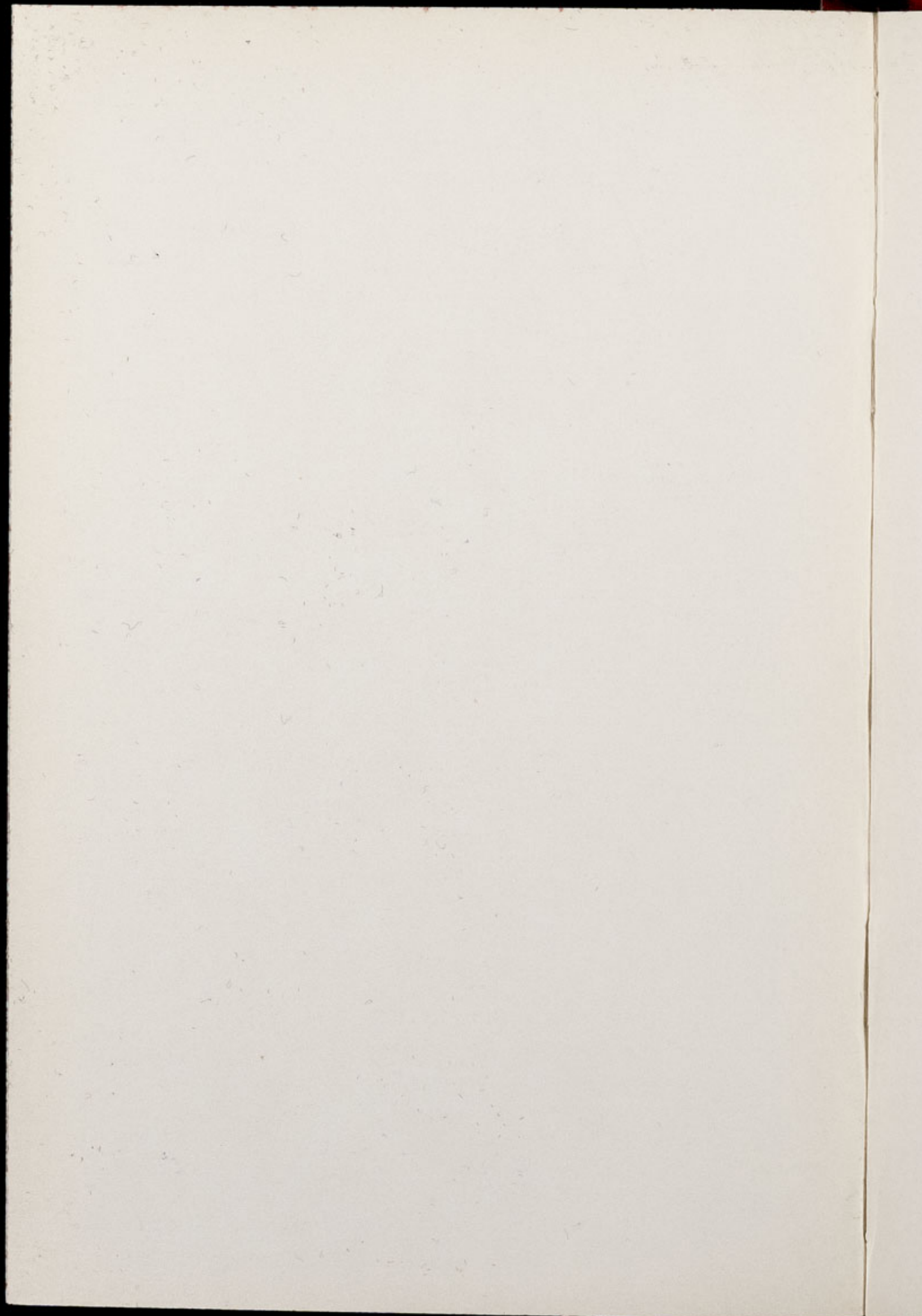
Chester Zoo News

AND GUIDE

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

September 1967

Price 1/-



The North of England Zoological Society

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COVER: This month's cover photograph shows three of our four Great Eagle Owl chicks. For further details see page 11.

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ARRIVALS AND BIRTHS

Among the new arrivals this month are one male and two female Blesboks which were received from Frankfurt Zoo. A third female had a youngster just before she was due to leave Germany and when the baby is old enough to travel, both will be transported to Chester Zoo. The Blesbok is a rather Gnu-like antelope from South Africa. Unfortunately these animals have to undergo a twelve month quarantine period at our Birkenhead Quarantine Station before they can be brought to the Zoo.

An Ankole calf has been born recently, the third this year. The youngster is thriving and brings our herd to twelve.

A welcome addition to the Nocturnal House is a Sugar Glider, a squirrel-like marsupial found in Australia and New Guinea. The new arrival has been introduced to our other six Sugar Gliders and has settled down well. These animals have a gliding membrane between the limbs which enables them to jump from a tree and glide, rapidly losing height. Their diet in the wild state consists of insects, tender buds, blossoms and native fruits. They have rather a "sweet-tooth" thus the name "Sugar Glider".

REPTILE ARRIVALS

Two Fat-tailed or Ground Geckoes (*Eublepharis macularis*) have been hatched in the Reptile House. The parents arrived during April this year and originate from India and Pakistan.

A new arrival in the Reptile Section is a four foot long Caiman (*Caiman crocodilus*). This species is found in South America and attains a length of 8 to 10 feet when fully grown. It was presented to us by Mr. A. F. Holtz, a friend of Mr. Gerald Iles, Director of the Zoological Society, Montreal, Canada.

Two young Common Iguanas were received and have been accommodated with the other two of this species already in residence. These new arrivals are youngsters about 18 or 20 inches long and will eventually reach a length of almost 5 feet. Common Iguanas are found in South America and principally feed on leaves, berries and plant food but young ones especially eat insects and snails.

The only venomous arrivals during the past month were two Russell's Vipers, a species found in India and parts of S.E. Asia. These are particularly dangerous Snakes and are said to cause more deaths in India than the dreaded Cobra. Their venom is very powerful and as they feed to a large extent on rodents, they are abundant in the vicinity of human habitation. They reach a maximum length of about five feet and are attractively marked with white edged brown circles on a pale brown background.

MOUNTAIN AND LOWLAND GORILLAS

The pair of Mountain Gorillas are among the most spectacular and certainly the most expensive of all the animals at Chester Zoo. These are the only Mountain Gorillas in this country; in fact, so far as is known there are only fourteen Mountain Gorillas in captivity throughout the world and they can only be seen at eight Zoos, mainly in America.

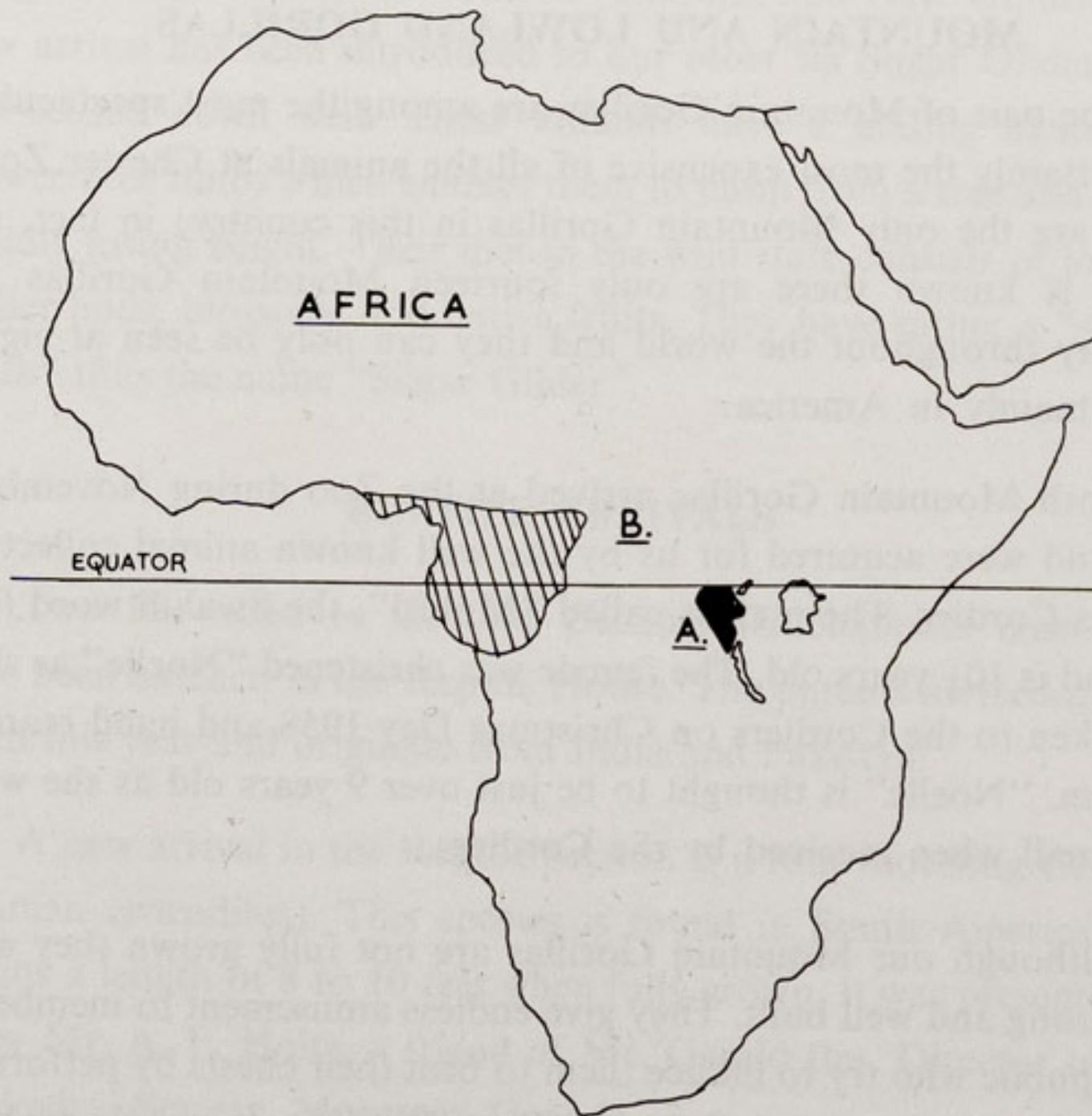
Both Mountain Gorillas arrived at the Zoo during November 1960 and were acquired for us by the well known animal collector Charles Cordier. The male is called "Mukisi", the Swahili word for idol and is 10½ years old. The female was christened "Noelle" as she was taken to the Cordiers on Christmas Day 1958 and hand reared by them. "Noelle" is thought to be just over 9 years old as she was very small when received by the Cordiers.

Although our Mountain Gorillas are not fully grown they are very strong and well built. They give endless amusement to members of the public who try to induce them to beat their chests by performing contortions in front of the Gorillas. Gorillas, especially males,

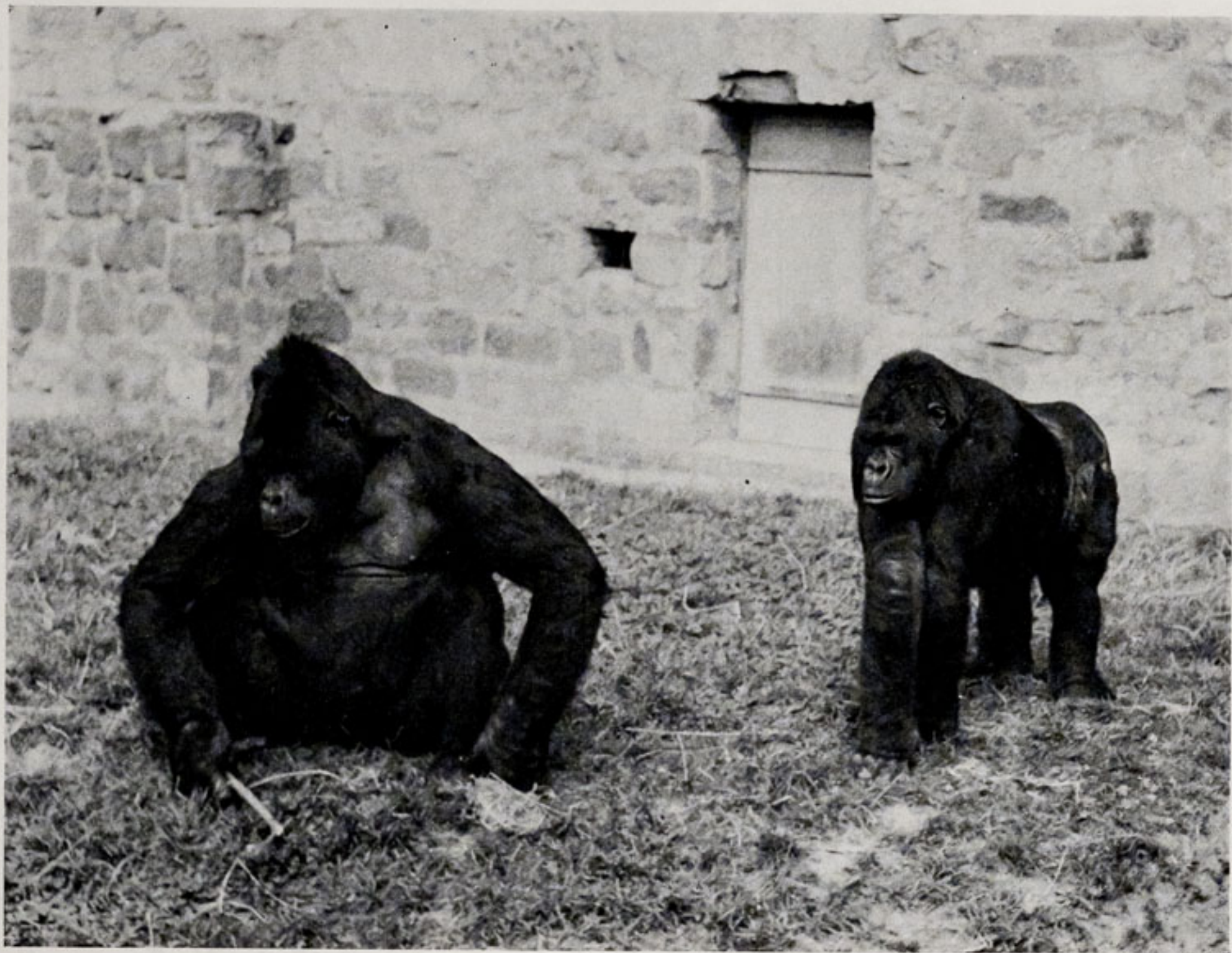
will quite often beat their chests when goaded in this way; chest beating is a threat display in Gorillas but we feel ours are playing to the audience most of the time.

The Mountain Gorilla can be distinguished from the Lowland as generally it has a narrower skull and shorter arms. As a rule, the hair of a Mountain Gorilla is darker and longer than that of the Lowland Gorilla. Our Gorillas although accommodated in the Tropical House, have free access to the open air and go outside in all weathers. To simulate the conditions found in their natural habitat, we have provided them with a mist-spray in their indoor quarters in the Tropical House; the spray has a marked affect on the coats of these animals.

Authorities on the Mountain Gorilla state that when the male is ten years old he develops a grey-saddle marking but this is not yet apparent in "Mukisi".



DISTRIBUTION OF : (a) Mountain Gorilla (b) Lowland Gorilla



MOUNTAIN GORILLAS

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

The Mountain Gorilla is found at altitudes of 7,000-13,000 ft. in the forests of Central Africa from the Equator to latitude $4^{\circ} 20' S.$ and from longitude $26^{\circ} 30' E.$ to the western escarpment of the Rift Valley and also in the Virunga Volcanoes and Kayonza Forests. This range covers an area of 35,000 square miles and the Gorillas are said to be concentrated mainly in about sixty more or less isolated tracts of 10 to 200 square miles each.

Although not in imminent danger of extinction, the Mountain Gorilla is still a very rare animal. Recent surveys indicate a population of not less than 5,000 and not more than 15,000 specimens. The greatest danger to their well-being is the despoilation of their habitat which will become more of a problem in the years to come as farming methods improve. Another threat to this species and all other primates is the collection of these animals for use in medical research. The Mountain Gorilla is fully protected in the Albert National Park which was established in 1925 and enlarged in 1929 to include the whole chain of the Virunga Volcanoes. The most recent threat to Mountain Gorillas is the political unrest in the area; wild animals always suffer in this type of situation.

A pair of Lowland Gorillas are also exhibited at the Zoo and prove a great attraction to members of the public. "Gogal", the female, arrived during April 1964 and is now about $6\frac{1}{2}$ years old; "Jason", the male, arrived during July 1965 and is now $4\frac{1}{2}$ years old. "Gogal" is a very light-coloured Gorilla being a distinct brown, whereas the colour of "Jason's" fur is almost black.

Lowland Gorillas are not as rare as the Mountain either in captivity or in the wild state. At the last count, 259 were recorded in 87 Zoos throughout the World and 9 of these had been bred in captivity.

The Lowland Gorilla has a far wider distribution area than



LOWLAND GORILLAS

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

GUIDE TO ZOOLOGICAL GARDENS

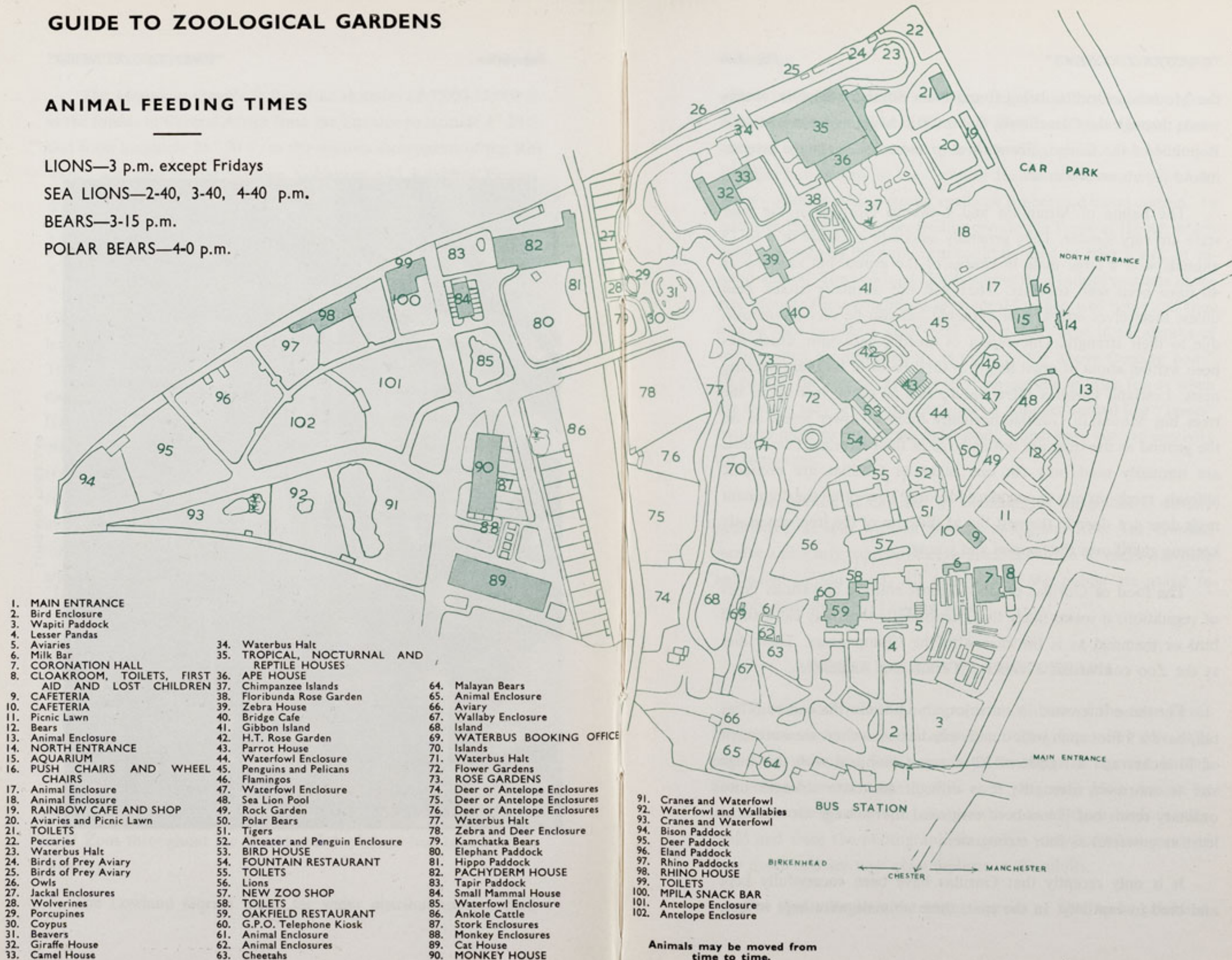
ANIMAL FEEDING TIMES

LIONS—3 p.m. except Fridays

SEA LIONS—2-40, 3-40, 4-40 p.m.

BEARS—3-15 p.m.

POLAR BEARS—4-0 p.m.



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|--|--|---------------------------------|
| 1. MAIN ENTRANCE | 34. Waterbus Halt | 64. Malayan Bears |
| 2. Bird Enclosure | 35. TROPICAL, NOCTURNAL AND REPTILE HOUSES | 65. Animal Enclosure |
| 3. Wapiti Paddock | 36. APE HOUSE | 66. Aviary |
| 4. Lesser Pandas | 37. Chimpanzee Islands | 67. Wallaby Enclosure |
| 5. Aviaries | 38. Floribunda Rose Garden | 68. Island |
| 6. Milk Bar | 39. Zebra House | 69. WATERBUS BOOKING OFFICE |
| 7. CORONATION HALL | 40. Bridge Cafe | 70. Islands |
| 8. CLOAKROOM, TOILETS, FIRST AID AND LOST CHILDREN | 41. Gibbon Island | 71. Waterbus Halt |
| 9. CAFETERIA | 42. H.T. Rose Garden | 72. Flower Gardens |
| 10. CAFETERIA | 43. Parrot House | 73. ROSE GARDENS |
| 11. Picnic Lawn | 44. Waterfowl Enclosure | 74. Deer or Antelope Enclosures |
| 12. Bears | 45. Penguins and Pelicans | 75. Deer or Antelope Enclosures |
| 13. Animal Enclosure | 46. Flamingos | 76. Deer or Antelope Enclosures |
| 14. NORTH ENTRANCE | 47. Waterfowl Enclosure | 77. Waterbus Halt |
| 15. AQUARIUM | 48. Sea Lion Pool | 78. Zebra and Deer Enclosure |
| 16. PUSH CHAIRS AND WHEEL CHAIRS | 49. Rock Garden | 79. Kamchatka Bears |
| 17. Animal Enclosure | 50. Polar Bears | 80. Elephant Paddock |
| 18. Animal Enclosure | 51. Tigers | 81. Hippo Paddock |
| 19. RAINBOW CAFE AND SHOP | 52. Anteater and Penguin Enclosure | 82. PACHYDERM HOUSE |
| 20. Aviaries and Picnic Lawn | 53. BIRD HOUSE | 83. Tapir Paddock |
| 21. TOILETS | 54. FOUNTAIN RESTAURANT | 84. Small Mammal House |
| 22. Peccaries | 55. TOILETS | 85. Waterfowl Enclosure |
| 23. Waterbus Halt | 56. Lions | 86. Ankole Cattle |
| 24. Birds of Prey Aviary | 57. NEW ZOO SHOP | 87. Stork Enclosures |
| 25. Birds of Prey Aviary | 58. TOILETS | 88. Monkey Enclosures |
| 26. Owls | 59. OAKFIELD RESTAURANT | 89. Cat House |
| 27. Jackal Enclosures | 60. G.P.O. Telephone Kiosk | 90. MONKEY HOUSE |
| 28. Wolverines | 61. Animal Enclosure | |
| 29. Porcupines | 62. Animal Enclosures | |
| 30. Coypus | 63. Cheetahs | |
| 31. Beavers | | |
| 32. Giraffe House | | |
| 33. Camel House | | |

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|-----------------------------|
| 91. Cranes and Waterfowl |
| 92. Waterfowl and Wallabies |
| 93. Cranes and Waterfowl |
| 94. Bison Paddock |
| 95. Deer Paddock |
| 96. Eland Paddock |
| 97. Rhino Paddocks |
| 98. RHINO HOUSE |
| 99. TOILETS |
| 100. MPILA SNACK BAR |
| 101. Antelope Enclosure |
| 102. Antelope Enclosure |

Animals may be moved from time to time.

the Mountain Gorilla, being found from Southern Nigeria southwards through the Cameroons, Gabon, Rio Muni and almost to the Republic of the Congo. From close to the coast, its range extends inland for about 500 miles.

The habits of Mountain and Lowland Gorillas in the wild state are very similar. They generally associate in bands of 5 to 15 animals with a large male in charge of the group, but as many as 40 have been seen together. They will not normally attack man unless themselves attacked or cornered but can be very dangerous, due to their strength. One aspect of Gorilla behaviour which has been written about at great length is their habit of building sleeping nests. Lowland Gorillas often build nests 50 or 60 feet up in the trees but Mountain Gorillas normally build at lower levels or on the ground as the trees are not as large in their habitat. These nests are normally used only for one night as Gorillas are nomadic animals, rarely staying in one place for long. Very often the dominant male does not sleep in the nest but at the base of the tree, obviously keeping guard over the females and young.

The food of Gorillas consists almost entirely of various types of vegetation; it seems likely that occasionally they may eat a small bird or mammal as is the case with the Chimpanzees. Their diet at the Zoo consists of a variety of fruits and vegetables.

For those interested in statistics, an adult Gorilla can be 6 feet tall, have a 9 foot span with outstretched arms, a chest measurement of 70 inches and a weight of 32 stones. Combined with this huge size is enormous strength; it is difficult to relate strength into ordinary terms but it has been estimated that a large Gorilla is at least as powerful as four strong men.

It is only recently that Gorillas have been successfully kept and bred in captivity. In the past, these animals were kept in hot,

airless inside cages in the mistaken belief that they needed a great deal of heat. At Chester Zoo our Gorillas live on large, grass-covered islands surrounded by a water-filled ditch. The Mountain Gorillas have access to the Tropical House whenever they wish by merely pushing aside a strong synthetic rubber and metal curtain. In addition, they have smaller feeding dens in the Tropical House, which cannot be seen by the public but could be used to trap a sick or injured animal. The Lowland Gorillas have their indoor quarters in the Ape House. These conditions seem ideal for their well being and they can be seen outside a great deal of the time, even in the depths of winter when the temperature is only a little above freezing point. Of course, the Keeper will not let them outside in thick fog or when the frost is very severe and obviously a younger animal like "Jason" requires more care than the older ones, which have been in captivity for some time.

The feeding of Gorillas by members of the public is strictly prohibited, as it is with all animals at Chester Zoo. The Gorillas receive a properly balanced diet as diseases can be spread by feeding half-eaten or old food. All members of the public are asked to comply with the "No Feeding Rule".

NOTES ON COVER PHOTOGRAPH

This month's cover photograph is of three of the four Great Eagle Owl chicks hatched at the Zoo during June 1967. We have been very successful with regards to breeding this species, having had young from the same parents each year since 1962. As can be seen from the photograph, the growth rate of these birds is very rapid and since the photograph was taken, they have lost most of their down and are now exact replicas of the adults.

The Great Eagle is the largest species of Owl to be exhibited

at the Zoo and is found in Europe and Asia. They have occasionally been recorded as a wild bird in this country but it seems likely that a number have escaped from Zoos and private collections.

BIRD NOTES

The long flight aviary at the rear of the Oakfield Restaurant which has been used to accommodate a large collection of Weavers, Finches, etc., has now been turned into a Wader aviary. Most of the original inhabitants of this aviary have been taken to one of the larger Rainbow Flight aviaries.

Little alteration was required to adapt this aviary for Waders — fine gravel has been placed near the pool and sand spread over neighbouring areas. The original ground-living species have been retained; these are Chinese Painted Quail and Crested Francolin. The Avocet has been transferred from the Temperate Bird House and has settled well with the other species. New arrivals for this Wader aviary were four Oystercatchers and a South American Spur-winged Plover. The Oystercatchers despite their name are not known to feed on Oysters but take cockles, worms, mussels and smaller bivalves, small crabs, limpets and fish. At the Zoo our birds are fed on fresh water molluscs, minced meat and insectivorous food, upon which they are thriving. Although Oystercatchers are common birds in this country, most people never seem to get a close view of their striking black and white plumage and bright orange legs and beak. During the Autumn and Winter, they form into huge flocks on Estuaries and coasts and their high pitched piping call is very characteristic. On the Dee Estuary, 10 miles from the Zoo, flocks of many thousands can be seen and occasionally they can be seen on the fields close to the Zoo. Oystercatchers have a very wide distribution area, being found on coasts almost everywhere in the World, except the Polar Regions.



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

WADER AVIARY WITH OYSTER-CATCHERS
IN FOREGROUND

Recent additions to the waterfowl collection were five Canada and four Grey Lag Geese. They form an attraction for the public but also serve a useful purpose by keeping down the grass in large enclosures also occupied by Cranes, Ducks and Wallabies.

A young male Kestrel was presented and has been accommodated with the Roadside Hawk and Little Owl in one of the Owl aviaries (No. 5 on the Plan). Kestrels, a species of Falcon, are commonly found in this country and the characteristic, almost motionless hovering whilst searching for prey has earned them the name of Windhover or Stand Hawk. Their main diet consists of small mammals but insects and small birds are also eaten. At the Zoo we feed lean meat supplemented with mice and day old chicks; the fur and feathers are essential for the well being of this species and are regurgitated in the form of a pellet several hours after being eaten.

Other recent arrivals include three young Barn Owls which will join the other five of this species in the near future. The Barn Owl is one of the most beautiful species, being white-coloured on the face and underparts and a yellowish-brown gently mottled with grey-blue on the head and back. When seen in flight, this species looks almost pure white, especially when viewed from underneath and reminds one of a huge slow-flying moth. In the wild state they feed principally on mice and other small mammals and like the Kestrel require chicks and mice when in captivity.

A Red-billed Hornbill arrived recently and has been accommodated in the indoor section of one of the Bird House aviaries. The Red-billed is a small species of Hornbill, lacking the casque on the top of the beak, which is such a feature in so many species of Hornbills. They have a wide distribution area in Africa being especially common in Savannah woodland. Their food consists of insects and various fruits and they become very tame near areas of human

habitation. They are usually seen in small flocks and spend a great deal of time on the ground.

Also accommodated in the interior of one of the Bird House aviaries are a pair of Blue-crowned Hanging Parrots, a species found in the Malay Peninsular, Borneo and Sumatra. These birds are no longer than a sparrow but have beautiful colouration, especially the male which is brilliant green, blue on the crown, yellow and red on the rump and has a bright crimson patch on the throat. The female is altogether a duller bird, lacking the red throat patch but is none-the-less a very attractive bird. Most people are amazed to see these birds hanging like bats from the top of their aviary; in fact, they sleep and rest in this unusual position. Their food consists mainly of nectar and fruit and in addition a little seed is given to captive birds. During 1959, a Certificate of Merit was awarded to Chester Zoo by the Avicultural Society for breeding a cross between the Ceylon and the Blue-crowned Hanging Parrot. The new Hanging Parrots are accommodated in the same range of aviaries so we hope we will be successful in breeding.

GREAT APE INTELLIGENCE

For many years, Zoologists have been speculating as to the comparative intelligence of the Gorilla, Orang-utan and Chimpanzee. Many authorities put the Chimpanzee at the top of the list due to its more lively, enquiring actions. Others favour the Gorilla, which is nearest in anatomical features to man.

Of course it is a relatively easy matter to find out the I.Q. of a human being but due to lack of vocabulary and difficulties in communication, it is more difficult to do so with the non-human primates. Since 1960, Duane M. Rumbaugh and Carol McCormack have been undertaking a study of seven Gorillas, eight Chimpanzees and five Orang-utans at the San Diego Zoo.

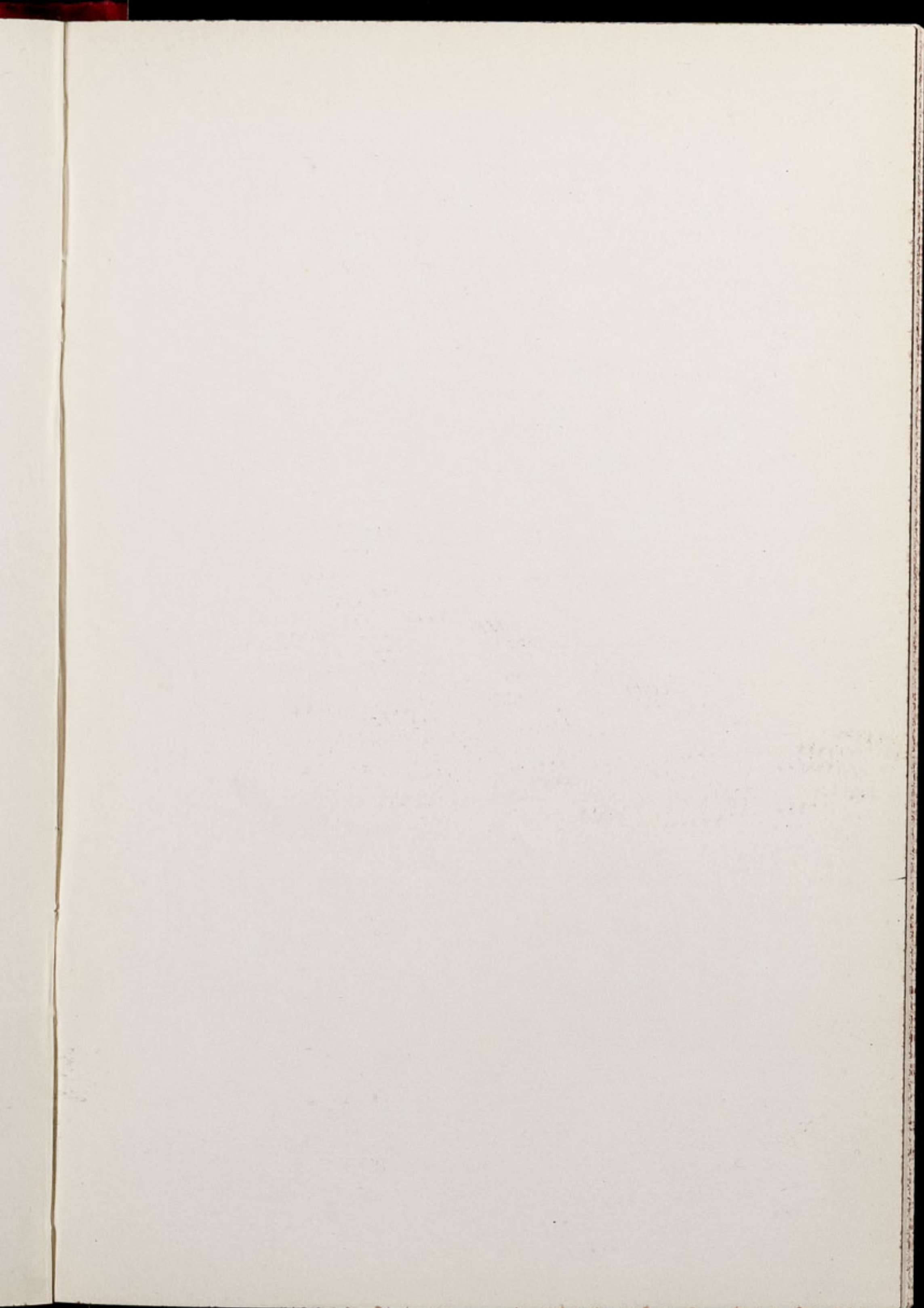
The procedure for testing Great Ape Intelligence is known as learning-set training, involving visual discrimination tasks. Most of the problems consist of a pair of objects differing in a variety of ways. When the object designated "correct" is chosen, the Ape receives a reward of food. The animal being tested chooses between the objects by pushing the front of a glass-fronted bin; if the choice is correct, the animal finds food in the small well exposed as the bin is displaced. The animals become more proficient in solving these problems and after a whole series of the Intelligence Tests, individuals can be assessed on their percentage of correct responses, in relation to age.

The conclusion reached by the two researchers after their exhaustive test programme was that Gorillas, Chimps and Orang-Utans could all reach the same level of intelligence. However, individuals of all species varied a great deal in their I.Q. rating. One animal which would not respond to the learning-set training was a 15 years old Gorilla which broke the test apparatus on several occasions and was described as an academic drop-out.

STOP PRESS

Latest Birth: Black Rhinoceros "Reginald", to be seen in the Rhinoceros House No. 98 on the Plan.





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