CHESTER ZOO NEWS

AND GUIDE

September 1972

Price 6p

The North of England Zoological Society

ZOOLOGICAL GARDENS, UPTON-BY-CHESTER

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ILLUSTRATIONS:

COVER: White Rhinoceros.

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

ANNUAL SUBSCRIPTION — NINETY-FIVE PENCE POSTAGE PAID
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ARRIVALS AND BIRTHS

In enclosure No. 109 visitors can see a new baby Nilgai (*Boselaphus tragocamelus*) whose birth was witnessed by a large enthralled crowd one busy afternoon. It was actually one of twins but the other calf did not survive. The Nilgai is the largest antelope found in India and with the recent addition, our herd consists of six animals. Both sexes have white patches below the fetlocks and on the ears, nose and throat but the male has a handsome bluish-grey coat while the female is a rich brown. Short straight horns are also present in the male. The calf has similar colouration to its mother, but its sex is not yet known.

This particular female bred for the first time in 1970 when she produced a single male calf which is still in the collection and is well grown. In August of last year she gave birth to twins, a normal the occurrence in this species. These proved to be one of either sex and young female, which was retained to increase the breeding potential of the herd, was extremely interested in the latest births.

Two Arabian Gazelle fawns (*Gazella arabica*) were born on the same day and are accommodated with their mothers in the line of enclosures marked No. 87 on the Zoo Plan. The females, named Cleo and Tina, have produced many young since they arrived here in 1966.

From Australia we have received some very interesting animals —two pairs of Red Kangaroos (*Megaleia rufa*). These animals are subject to quarantine. As yet they are fairly small as they are young specimens.

For the first two or three days after their arrival the Kangaroos were confined to their indoor quarters to enable them to settle down after the long journey from Perth. However they were soon bounding up and down the paddock and causing tremendous interest amongst the visitors.

The female of the species is generally bluish-grey in colour and in Australia is known as the "Blue Flyer." Because the female's pelt is much more attractive than that of the male this has resulted in the deaths of many more females than males, by the kangaroo shooters. Often of course, the females also have young in the pouch. These pelts can fetch large sums of money and in consequence the number of females is declining rapidly.

The Red Kangaroo is distributed over most of Australia but is not found on the south western tip or on the extreme eastern and northern coasts. It prefers broad open plains where it fills the ecological niche held by antelope and deer on other continents. Red Kangaroos associate in herds sometimes containing large numbers of animals and are one of the species being widely slaughtered at the present time for the pet food trade.

Feeding occurs at night and the Kangaroos rest during the hot Australian day. They are able to withstand considerable periods without water. As most people know, they have short delicate front legs and long powerful hind limbs. With these they are capable of immense leaps covering twenty-five feet and more. The greatest distance ever recorded was forty-two feet but this was an exceptional jump. Over short distances Red Kangaroos can reach a speed of 30 m.p.h. which, though fast, is no match for modern vehicles.

An adult male may measure six to seven feet tall, with another three to four feet of tail. A resting Kangaroo sits back on its powerful tail using it as a sort of third limb. On the foot, the second and third toes are partly fused, forming an effective grooming claw.

The gestation period of the Red Kangaroo is only thirty-three days, at which time the tiny partially-formed baby makes a laborious journey to its mother's pouch and attaches itself to one of her teats. When it is finally ready to leave the pouch, some six to seven months later, it weighs between four and eight pounds. It is hoped that from the four Red Kangaroos now at Chester, an appreciable herd can be built up.

BIRD NOTES

We are pleased to be able to report that the following birds were bred recently:

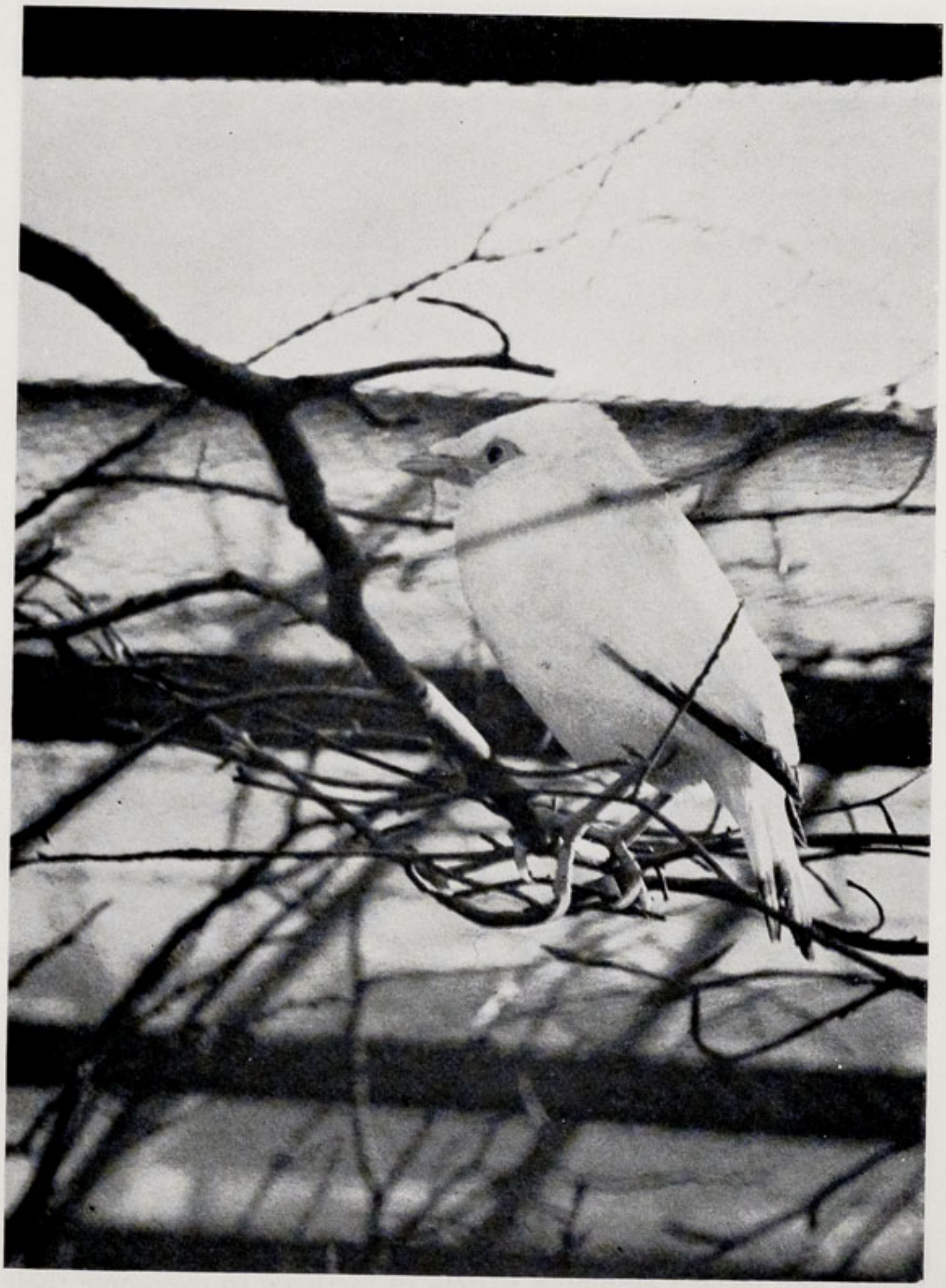
3 Fischer's Lovebirds (*Agapornis fischeri*)
7 Java Sparrows (*Padda oryzivora*)
1 Red-headed Bunting (*Emberiza bruniceps*)
4 Bank Mynahs (*Acridotheres ginginianus*)
3 Jungle Mynahs (*Aethiopsar fuscus*)
1 Rothschild's Mynah (*Leucopsar rothschildi*)

The three Fischer's Lovebird chicks are the first to have emerged this season from the nestboxes in their aviary, No. 5. At the end of 1971, thirteen of this species were recorded as having been reared successfully during the year.

In the photograph on the right is the Rothchild's Mynah chick. This was a very pleasing success as these birds originate from a restricted range on the northern coast of the island of Bali in Indonesia and also as the parents have been resident at the Zoo since only March of this year.

Soon after their arrival the pair of Rothschild's Mynahs were established in one of the outer aviaries attached to the Temperate Bird House, No. 54. They were offered nestboxes and decided on one of rectangular shape set laterally near the top of the aviary. The female was first observed carrying food into the nest on the 12th July and on the 12th August the single chick emerged. Soon afterwards the male began displaying and at the present time the pair are going to nest once more.

Neither the Jungle nor the Bank Mynahs have been bred in Chester before and so the appearance of chicks in the Tropical House was very much welcomed. These are some of the many species at liberty within the house and in each case the young represent two clutches.



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

YOUNG ROTHSCHILD'S MYNAH (*Leucopsar rothschildi*)

REPTILE NOTES

From Australia, in the same consignment as the Red Kangaroos, we received a ten foot Olive Python (*Liasis olivaceus*). This is a common snake of the coastal lowlands of northern and eastern Australia where young specimens in particular are often killed after having been mistaken for the venomous Brown Snake. The Olive Python will be kept off show for a time to ensure that it is feeding but since its diet in the wild includes mammals, birds and other snakes, it will require a vivarium where it can do no harm.

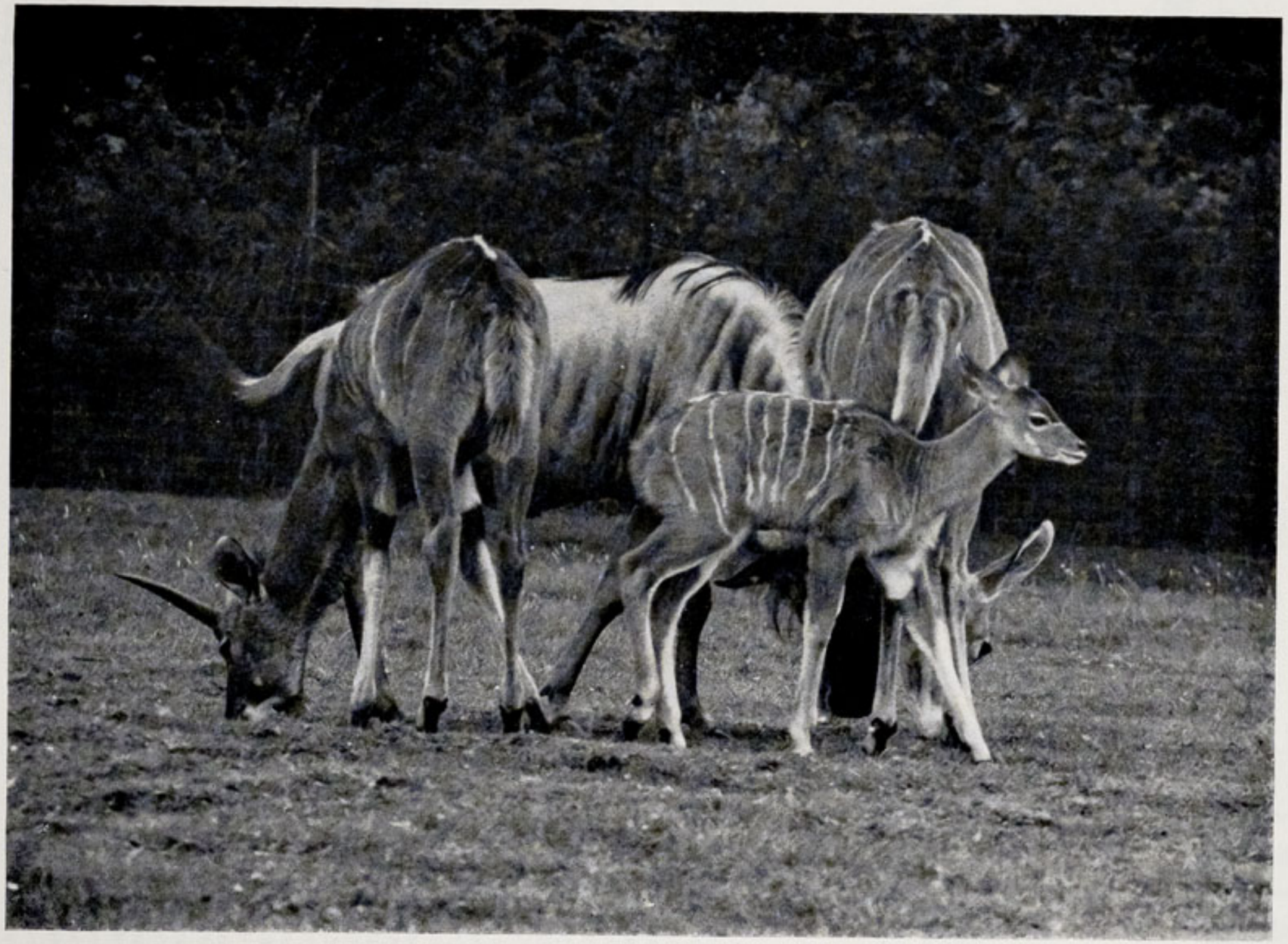
In 1968 hybrid snakes were hatched from the eggs of a female Chicken Snake (*Elaphe obsoleta quadrivittata*) and a male Black Rat Snake (*Elaphe obsoleta obsoleta*). Approximately ten weeks ago these hybrid offspring laid eggs themselves, fifteen being obtained in two separate clutches. Of the six in the first clutch, five have now hatched. Besides colour variation, one young snake has a larger head, and in a future issue it is hoped a photograph of these interesting specimens can be published.

GREATER KUDU

In the photograph on the right is the Greater Kudu calf born in July which we were pleased to discover is a female.

PYTHONS AND BOAS

By far the greater number of snakes in the world do not possess venom and instead employ a variety of methods to overcome their prey, the hundred or so species in the Boidae family, the Pythons and Boas, relying on constriction. Far and away the largest members of this group, in order of diminishing size, are the Anaconda, the



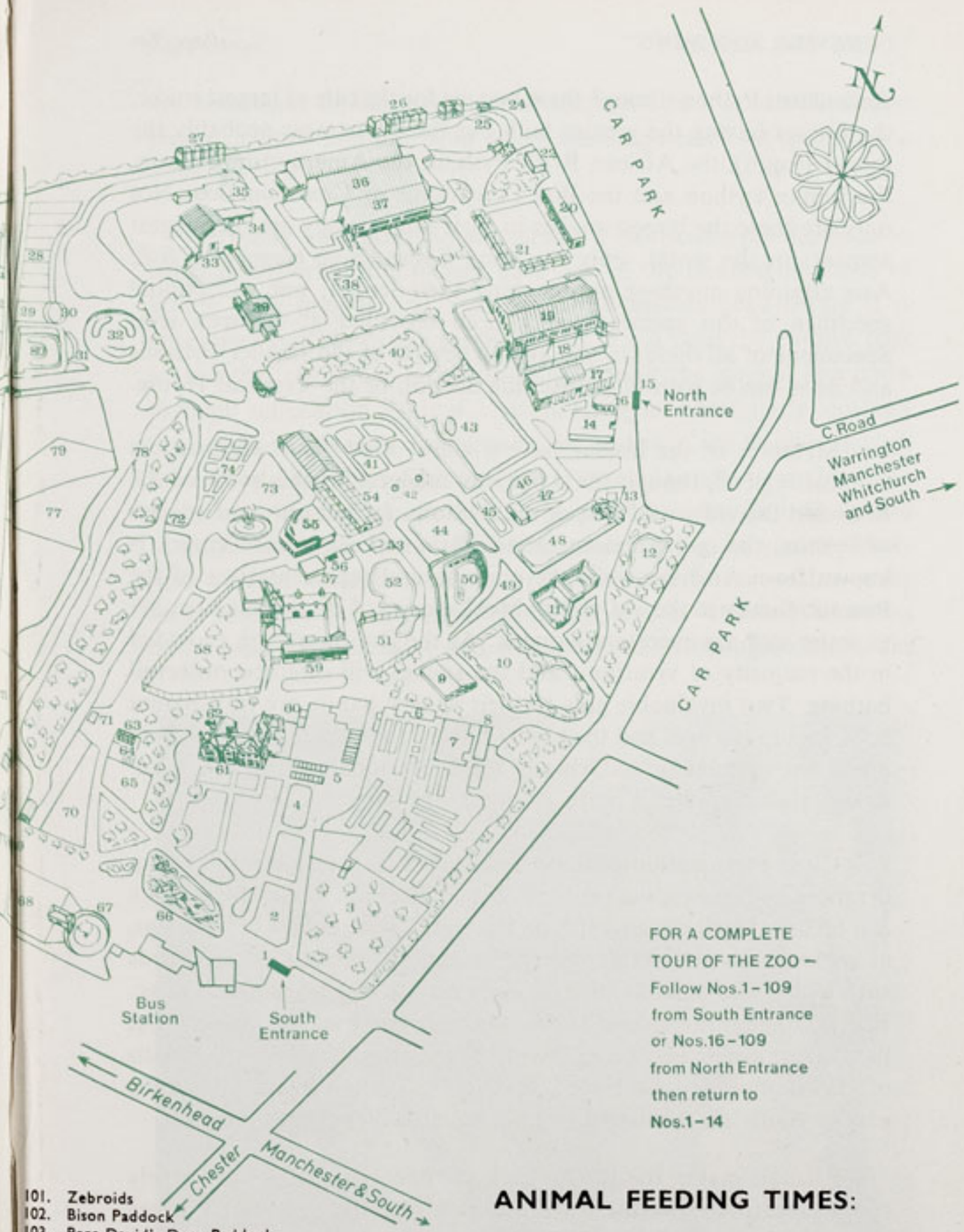
K. W. Green, A.R.P.S.

GREATER KUDU CALF (*Tragelaphus strepsiceros*)

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. 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. Flamingoes
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. Zebra Enclosure
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

Reticulated Python (though these two vie for the title of largest snake, the former having the greater bulk but the latter most probably the longer length), the African Rock Python, the Amethystine Python, the Indian Python and the Boa Constrictor or Common Boa. Not only are these the largest snakes in their family, they are the biggest serpents in the world, only the King Cobra (*Naja hannah*) of S.E. Asia attaining anything approaching their length, one exceptional specimen of this species having been recorded at eighteen feet. Specimens of all these six and also of several of the smaller Pythons and Boas can be seen in the Reptile Section of the Tropical House.

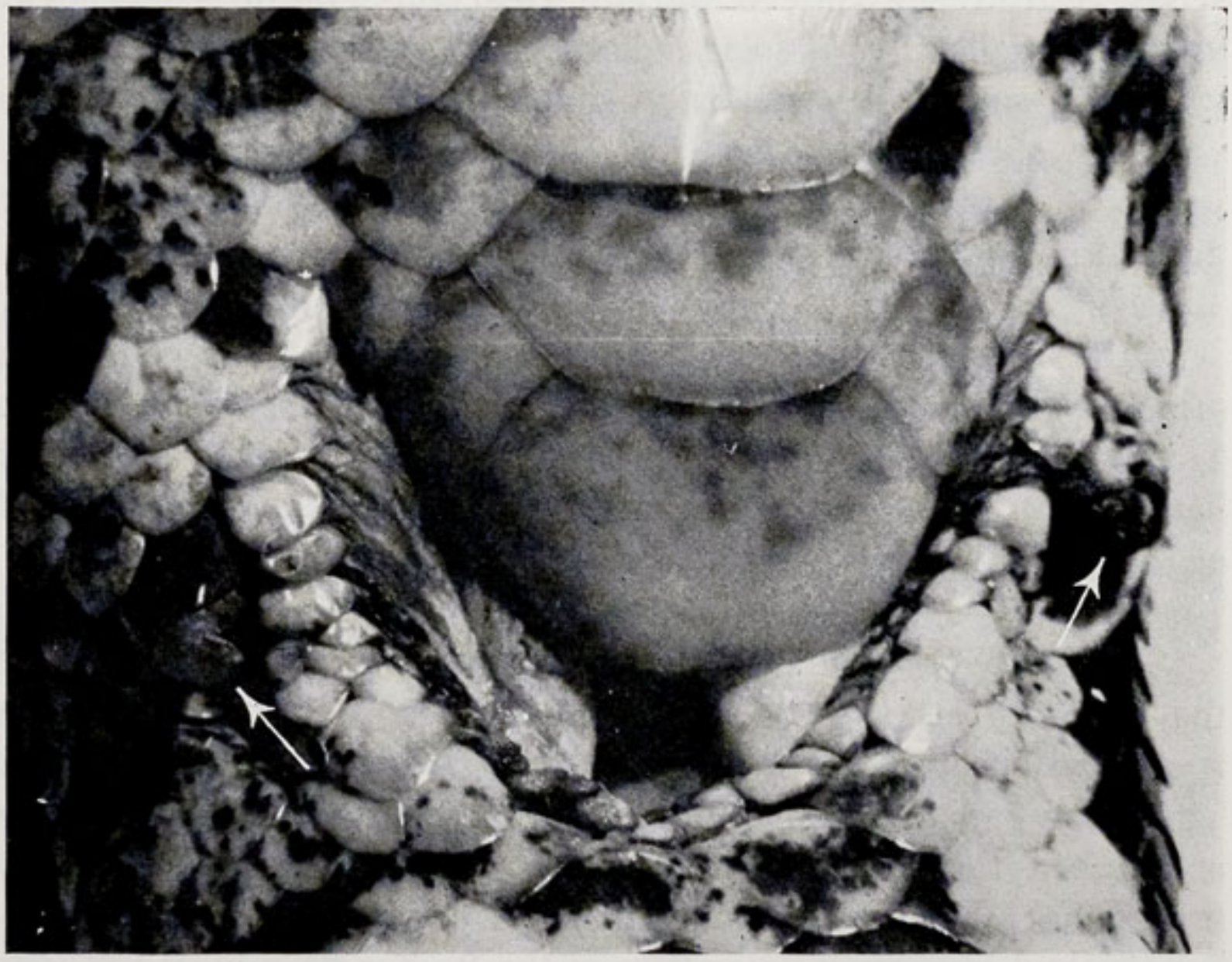
Members of the Boidae have a world wide distribution in the tropical regions, though the Americas tend to be the home of the Boas and the old world that of the Pythons. In fact only one species of Python, the rare Mexican Dwarf Python (*Loxocemus bicolor*), is known from America while there are several representatives of the Boa sub-family in the old world. Most species of Boidae take readily to water and are even semi-aquatic. At the Zoo pools are provided in the majority of vivariums and the snakes will often be observed bathing. Two invaluable aids to their watery habits are transparent coverings to the eyes and the ability to stay submerged for periods of up to ten minutes or so. Among the exceptions are the Boa Constrictors which prefer a more arboreal, dry habitat.

Close examination of a Python or Boa will reveal tiny protruberances known as spurs near the cloacal opening. These spurs which can be seen in the photograph on the right are remnants of hind legs, as snakes evolved from an ancient branch of lizards. Certain lizards such as the Glass Snake of Asia demonstrate this transitional stage. The Boidae family is one of the more primitive of the snake tribe, the Adders and Vipers being the most recently evolved forms. Fossils of the Boidae can be traced back sixty million years and some extinct giants are estimated to have reached fifty feet in length.

Like all snakes the Boidae lack ear openings but are extremely responsive to the slightest vibrations along the ground or other solid surfaces. In addition the Pythons have a number of depressions or "pits" bordering the mouth which are sensitive to heat and function in the same way as those of the more advanced Pit Vipers, in detecting warm-blooded prey in the dark. Their powers of sight

are somewhat limited and instead they rely on the well developed senses of smell and touch, in which the long flexible tongue plays a vital role.

Pythons and Boas do not crush their victims to death as is usually purported and in fact have one of the cleanest methods of killing. The prey is first secured in the snake's jaws before it is enveloped quickly in the reptile's coils. Each time the captive tries to breathe, the snake tightens its hold until the animal succumbs through suffocation. Only if a victim struggles particularly violently are any bones likely to be broken. The bodies of the Boidae, though massive in a number of species, are extremely supple to enable them to be manoeuvred rapidly around prey. This is engulfed whole and usually head first, the snake often manipulating its victim's body into a shape more convenient for swallowing. In the wild a snake may consume an animal constituting several hundred times its daily energy requirement and will not need to eat again for weeks



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

SPURS OF PYTHON

or even months. At the Zoo the snakes are fed more frequently with smaller prey.

Pythons differ from Boas in laying eggs, which in most forms at least are incubated by the female. In the larger species clutches may contain fifty eggs and in exceptional cases as many as a hundred. Their nests are located in such places as holes in trees, burrows and sometimes long vegetation or piles of leaves. From captivity it has been learned that a gravid female Python refuses food for some weeks before her eggs are laid and may twist onto her back or sides for short spells. Once the eggs are laid the female coils around them and leaves only for an occasional feed, bathe or drink. Incubation is in the region of a hundred days and during this time the temperature within the snake's coils can be as much as 12°F above that of the surrounding atmosphere.

Considerable research has gone into the phenomenon of these higher temperatures. All reptiles are cold-blooded and the Boidae are no exception, so the females are unable to generate heat themselves. Instead they conserve warmth. Heat conservation is dependent upon the availability of solar radiation and periods of unfavourable weather result in the equalizing of the snake's body temperature with that of its surroundings. Such a method of conserving warmth is important both in the incubation of eggs and also in the maintenance of normal digestive processes.

The hatching baby Python is equipped with an egg tooth attached to the premaxillary bone, which projects from the snout. This enables it to slit the leathery shell of the egg, though the actual hatching can be a lengthy business lasting from hours to days. The egg tooth disappears after a few days.

Young of the Boa sub-family are born alive and a large female may give birth to as many as sixty at one time. At birth the larger species in both groups measure between two and three feet long. They grow rapidly during their early years but after sexual maturity is attained the pace becomes much slower though it continues throughout their lives. Adult males are generally smaller than females and in captivity members of the Boidae have lived for over thirty years.

Numerous mammals, birds and other snakes all find young Pythons and Boas welcome additions to their diets. Gradually they outgrow these enemies, with the exception of man and unfortunately in our case the reverse applies, as the larger a snake becomes the more desirable it is to the hunter and leather manufacturer. In most regions very large specimens are now virtually impossible to locate and some species, notably the Indian Python, are showing a marked decline. Destruction of habitat is another reason for dwindling numbers.

Attacks on men have been reported but, apart from one or two instances, are rarely authenticated. In defence these snakes will hiss and bite but constriction is employed only as a very last resort. An experienced hunter would grip the snake at the base of the neck thus preventing it from biting and also from gaining an anchor for constriction.

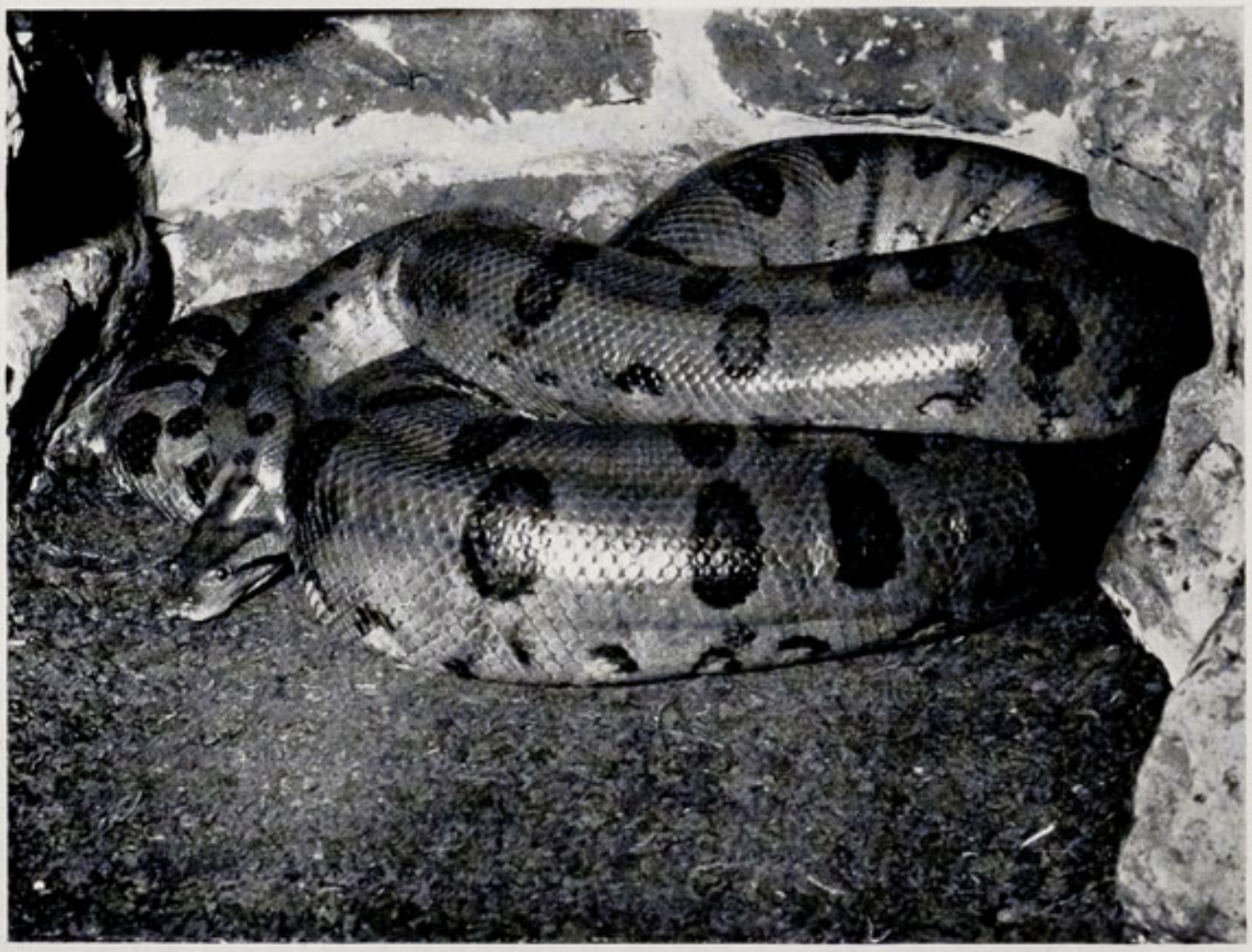
The following are notes on some of the species of Pythons and Boas which visitors can see in the Reptile Section.

The Boa Constrictor (*Constrictor constrictor*) has a range from northern Mexico south to Argentina and is also found in Trinidad. It is found in various types of terrain including semi-desert, tropical forest and open savannah. Markings differ according to range and several sub-species are recognised. The maximum length for the Boa Constrictor is about eighteen feet but the average is little more than twelve feet. The Anaconda is present over much of the Boa Constrictor's range but since the latter is not overfond of water and the former virtually aquatic, their interests seldom clash. As would be expected, the diet of the Common Boa consists chiefly of arboreal creatures such as birds, opossums and squirrels. An interesting point is that when Mongooses were introduced into islands of the Caribbean to control rodents but subsequently became pests themselves, it was the Boas which helped in regulating their numbers. At Chester Zoo this species was first bred in February 1967 when eighteen young were produced. At the present time there are eight Boa Constrictors in the collection.

The Anaconda (*Eunectes murinus*) is a true Boa and has a range in tropical South America east of the Andes. It is known

alternatively as the Water Boa and is probably the most aquatic of its family. Even its genetic name, Eunectes, in Greek means "swimmer" but surprisingly enough this snake is not adept at swimming. It prefers sluggish waters where it can glide through the shallows, often with only the top of its head above the surface. At the Zoo there is a single specimen, shown below, which is more likely to be found in its pool than out. Lengths of thirty feet and over have been recorded but the most striking feature of an adult Anaconda is its huge girth. Besides young Tapirs, deer and various rodents, etc., captured when they come to drink, the Anaconda consumes fish and other aquatic animals. A related species, the Yellow Anaconda (*Eunectes notaeus*) is smaller and has a more mottled body.

The African Rock Python (*Python sebae*) occurs throughout most of Africa except in areas of desert. It is not an arboreal species, preferring more rocky terrain and open savannah. In its diet will be found small rodents, pigs and antelope. A specimen has been recorded at twenty-five feet but after a history of persecution



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

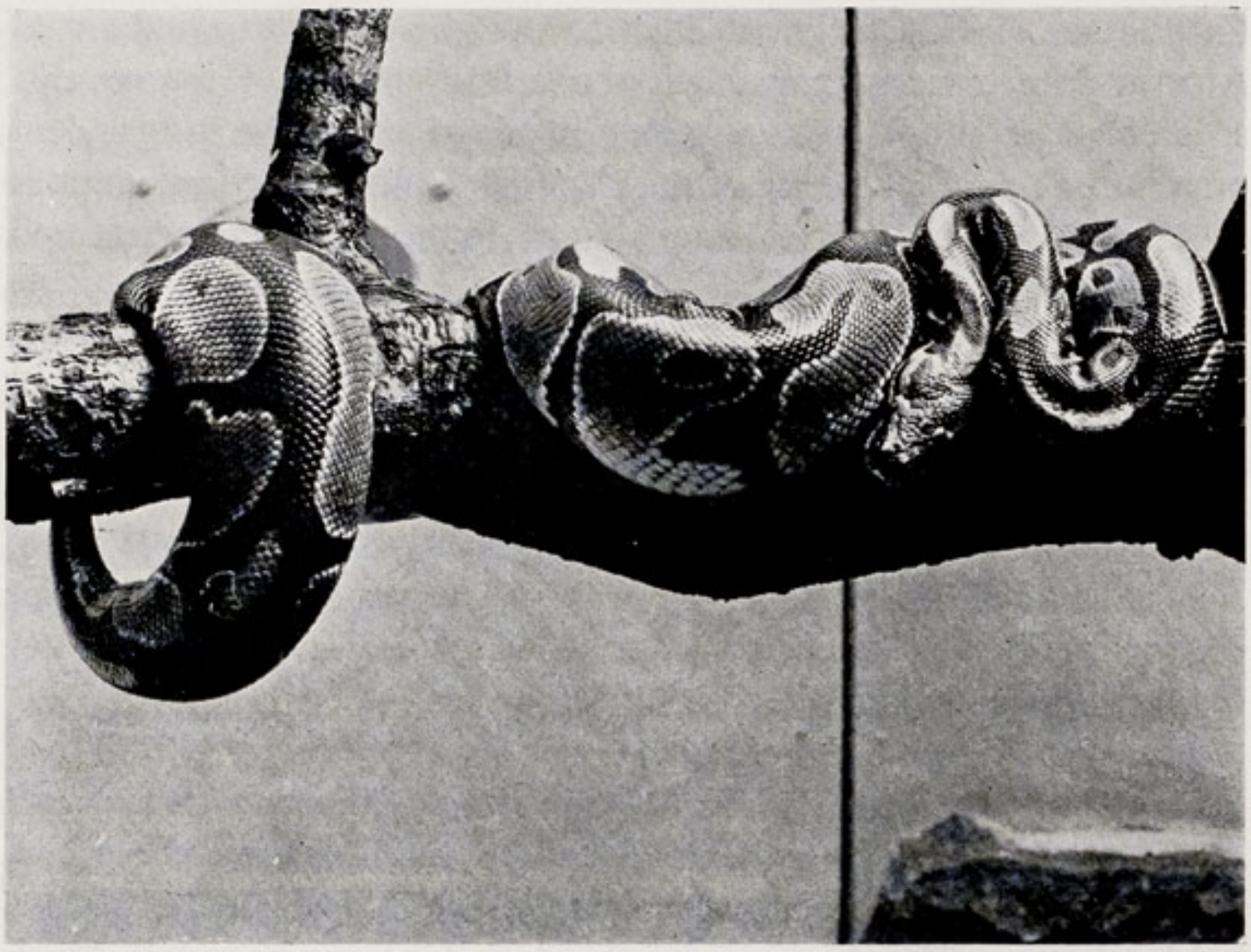
ANACONDA (*Eunectes murinus*)

for the leather industry, nowadays it would be difficult to find a wild African Python measuring much above fourteen feet. However this species has proved itself a valuable ally of farmers in checking rodent populations, especially that of the Cane Rat, and protection operates in some areas. At the Zoo an African Python has laid eggs and incubated several times but as yet these have not been fertile.

The Indian Python (*Python molurus*) attains a maximum length of twenty feet but, as already mentioned, of late its numbers have been declining. It is distributed from the Indus Valley in Pakistan eastwards to the China Sea and south eastwards to Borneo, Java, Sumbawa and Celebes. However there are two distinct colour phases, the lighter found from Kurachee to Madras and the darker in the eastern part of the range. At the Zoo we are currently exhibiting both phases. Two specimens of the light Indian Python may be seen in a vivarium with an Amethystine Python and visitors will notice that there is a considerable difference between these two specimens also, one being mid-brown and the other a most attractive golden brown. The markings of the dark type are brownish black and this phase attains greater lengths and is markedly more aggressive than the light Python.

The Reticulated Python (*Python reticulatus*) with a range in Burma, southern China and the East Indies including the Philippines and Timor, is probably the longest snake in the world with a verified record of thirty-three feet. The largest specimen ever exhibited here was a little over seventeen feet, while the larger Python on show at present measures between twelve and fourteen feet. This snake in particular has been credited with attacks on humans. The Reticulated Python shows a preference for tropical lowland forests and here hunts a variety of mammals and birds.

The Amethystine Python (*Liasis amethystinus*) is perhaps the least known of the really big snakes and yet has been recorded at a length of twenty-two feet. North eastern Australia, New Guinea, the East Indies and Philippines constitute the range of the Amethystine and being another aquatic species, it is likely to be encountered along river banks. It feeds mainly on opossums but is also known to catch small Kangaroos and Wallabies. A single specimen is on show which was collected in New Guinea.



Dr. S. S. Syinai

ROYAL PYTHON (*Python regius*)

The Carpet Python (*Morelia spilotes variegata*) comes from Australia and New Guinea and is a variety of the Diamond Python. This attractive snake, of which we received one specimen recently, averages ten feet long but has been recorded at fourteen feet.

The photograph above illustrates one of the smaller species, the Royal Python (*Python regius*) from West Africa which does not grow much over five feet long. It is also known as the Ball Python as when alarmed it rolls its body into a spherical shape with its head tucked out of sight in the middle of the tight coils. We are exhibiting three Royal Pythons, all of which display the mild natures typical of this species.

Of all the Boidae in the collection our best breeding results have been achieved with the Rainbow Boas (*Epicrates cenchris*). Over sixty young have been born since 1966, most of which have been sent to other collections. This attractive species from South America is seen to best advantage in the sunlight as it has an iridescent sheen to the body.

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.

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