



CHESTER ZOO NEWS

AND GUIDE

January 1979

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The North of England Zoological Society

ZOOLOGICAL GARDENS, UPTON-BY-CHESTER

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COVER

Young Arabian Gazelle and keeper Alan Woodward.

By courtesy of Peter Wait, Curator of Mammals

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Telephone Chester 20106/7/9

MUSK OX

The genus *Ovibos* consists of only one species, the Musk Oxen (*Ovibos moschatus*).

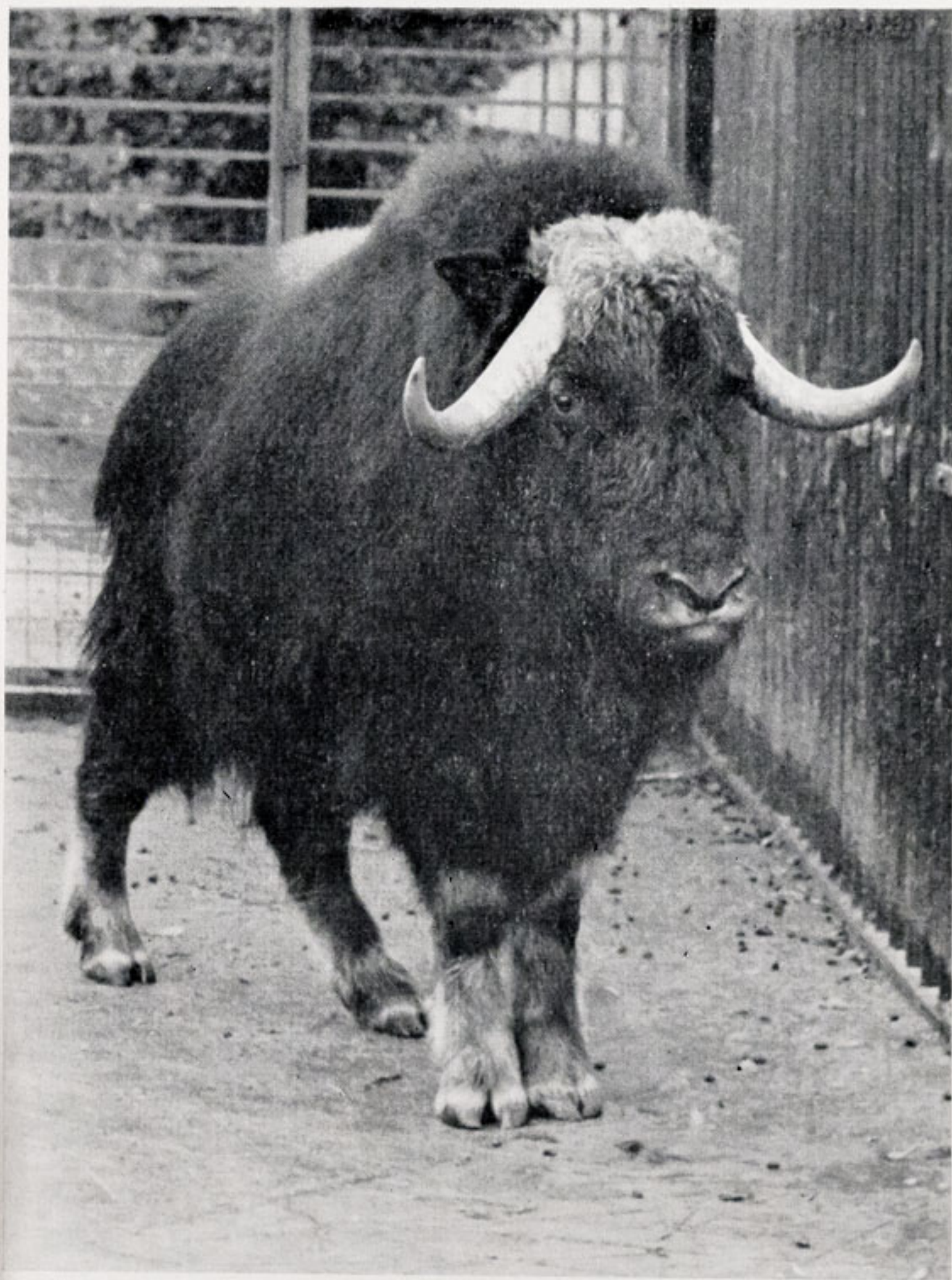
Of a compact build with long hair covering the whole of the body, the Musk Ox is found during the Winter in herds of 20-100 in the windswept tundras of Canada and Greenland. In the Summer however, the large herds break up into smaller groups to search for food; at this time it is possible for them to find a stunted willow which manages to survive in the cold wastes. The diet during the Winter is limited to moss, lichens, and bark, obtained by scraping out of the snow with the hooves, or by using the wide, sweeping horns to dig from the ground. The Zoo diet of the Musk Ox is somewhat more varied than that of his wild counterparts and consists of zoo concentrate, hay and greens.

In Enclosure 107 visitors can see "Hugo", a male Musk Ox, aged about three who was born in Whipnade Zoo. We hope to be able to obtain a mate for him in the future and eventually to breed from him.

The bull is approximately 130 cm tall but the beautiful, thick coat makes the animal appear much larger. Underneath the throat, chest and belly, the coat falls in a "curtain". The coat is shed in the Spring and clumps of the thick fur can be seen hanging loosely from the body or caught in rocks. In the Summer months the coat remains short but the Winter coat starts to grow again as Autumn sets in. In both Winter and Summer the coat is a dark brown to black, except for the saddle and lower legs which are yellowish.

The name Musk Ox is due to the fact that the fur has a musty odour; however, this smell has never deterred hunters who used to kill the animal for its warm coat and meat. At one time, because of uncontrolled hunting, the Musk Oxen were like the American Buffalo, in danger of extinction. Various laws have now been introduced and are being enforced and it is believed that numbers are increasing.

Musk Oxen breed rather slowly and every two years, usually in



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

MUSK OX

May or June, a single calf is produced. Their natural enemies are the Wolf and the Polar Bear. When youngsters in the herd are threatened by such predators the adults form a protective circle with the young in the centre. Standing shoulder to shoulder with their heads facing outwards the Musk Oxen present a formidable barrier. If a Wolf does not take to its heels it risks an unexpected charge from an adult which will rush from the circle with its head down. The punch of a butting Musk Ox bull must be one of the most powerful impacts that any animal can exert on another. They have been known to knock down buildings with repeated butting.

YOUNGSTERS

Readers may remember that in the October 1978 issue we reported the birth of a Squirrel Monkey, (*Saimiri sciureus*). Sadly, the youngster was eventually abandoned by its mother and was removed for hand-rearing.

We are very pleased however to report that under the careful attention of Mr. Peter Wait, Curator of Mammals, and Mrs. Wait, the baby has progressed very well. As can be seen in the picture opposite, taken at Christmas, the Squirrel Monkey has adopted "Genghis", the Great Dane, as his foster father and appears to be enjoying himself under the watchful eye of his "guardian"!

* * *

Keepers on the Pachyderm Section have been amused by the early morning antics of "Jubilee", the baby Elephant, as he has never experienced thick snow before! The elephants are let out for a while first thing in the morning, but they do not stay out for too long as the weather is rather cold for them.

"Jubilee", despite the cold, has been observed rolling lumps of snow about with his trunk and then becoming quite annoyed when they fall apart as he attempts to lift the "snowball". He has also taken great delight in kicking up the snow and generally enjoying himself; an amusing aftermath when the elephants are back inside, are the long trails of very large footprints which look quite odd when one is used to seeing bootprints and rabbit tracks!



" DIGNITY AND IMPUDENCE "



CHRISTMAS DINNER

Photos by courtesy of the "Sunday People"

D. G. LYON—VETERINARY OFFICER

Derek Lyon, Veterinary Officer to the North of England Zoological Society, was born in Southport and educated at Ormskirk Grammar School and later, after a move to Crewe, at Crewe Grammar School.

He qualified as a Veterinary Surgeon in 1967 at the University Faculty of Veterinary Science in Liverpool, and then joined the practice which had the contract to do all the veterinary work at the North of England Zoological Gardens. Mr. Lyon comes to the Zoo every day to do his "rounds" and in his absence the other Members of his practice take a great interest in the wide variety of animals entrusted to their care.

Married with three children, Mr. Lyon is something of a golf fanatic and even the bitter weather of this Winter has seen him braving the golf course! He is also fond of gardening, saunas, football, fishing and caravanning.

Mr. Lyon has a particular liking for the big cats and admits to having a soft spot for the tigers at the Zoo.

D. C. DINNING—LABORATORY TECHNICIAN

Donald Cameron Dinning was born in 1936 at Bellshill, Lanarkshire and was educated at Bathgate Academy. He commenced his working career as an apprentice laboratory technician with the Scientific Division of the National Coal Board. After five years service, he joined the Royal Army Medical Corps and between 1956 and 1959 saw service in the U.K. and the Far East, based mainly at the British Military Hospital, Singapore. On discharge from H. M. Forces, Mr. Dinning joined the technical staff of the Institute of Animal Genetics in Edinburgh where he worked until 1963. His next appointment was with the Centre for Tropical Veterinary Medicine at the Royal (Dick) School of Veterinary Studies, Edinburgh. During this period he was seconded to the University of Ibadan, Nigeria, under the auspices of the Ministry of Overseas Development.

In May 1969, Mr. Dinning joined the North of England Zoo-

logical Society. Married, with three children, Mr. Dinning's main interest, outside working hours, is the Royal British Legion and he holds the office of Treasurer in the Upton-by-Chester Branch.

ARRIVALS AND BIRTHS

MAMMALS:

- 1 Green Monkey (*Cercopithecus sabaesus*) Birth
- 1 Vervet Monkey (*Cercopithecus aethiops*) Presented
- 1 Arabian Gazelle (*Gazella arabica*) Birth
- 2 Grant's Zebras (*Equus burchelli granti*) Birth
- 3 Black Leopards (*Panthera pardus*) Birth
- 2 Patas Monkeys (*Erythrocebus patas*) Birth
- 1 Barbary Ape (*Macaca sylvana*) Birth
- 1 Giant Squirrel (*Ratufa bicolor*) Regent's Park

BIRDS:

- 4 Cuban Rosy Flamingoes (*Phenicopterus ruber ruber*)
Wildfowl Trust
- 2 Hawaiian Geese (*Branta sandvicensis*) Wildfowl Trust
- 2 Black Swans (*Cygnus atratus*) Wildfowl Trust
- 3 Sulphur-crested Cockatoos (*Kakatoe galerita*)
- 4 White-breasted Doves (*Gallicolumba jobiensis*)
- 4 Java Sparrows (*Padda oryzivora*) Presented
- 1 Mitchell's Lorikeet (*Trichoglossus haemotodus mitchelli*) Birth

REPTILES:

- 2 Solomon Island Skinks (*Corucia zebrata*) Birth
- 1 Indian Python (*Python molurus*) Presented
- 1 False Gavial (*Tomistoma schlegeli*) Presented
- 3 Aldabra Giant Tortoises (*Geochelone gigantea*) Jersey Zoo
- 1 Children's Python (*Liasis childreni childreni*)
- 1 Gaboon Viper (*Bitis gabonica*) Exchange
- 2 Pink-tongued Skinks (*Tiliqua gerrardi*)
- 2 Gould's Monitors (*Varanus gouldii*)
- 2 Johnston's River Crocodiles (*Crocodylus johnstoni*)
- 4 Boomslangs (*Dispholidus typus*) Exchange

CHESTER ZOO

THE NORTH OF ENGLAND
ZOOLOGICAL SOCIETY
ZOOLOGICAL GARDENS

FOR A COMPLETE TOUR OF THE ZOO — Follow North Entrance,
or Nos. 16-116 from North Entrance then return to North Entrance

**Chester Zoo is Open Daily
from 9.00 a.m. until dusk.**

To
LECTURE HALL
& CLASSROOM
(Reservations only)



1. SOUTH ENTRANCE

2. Peacock Enclosure
3. Wapiti Paddock
4. Coati Enclosure
5. Aviaries
6. Milk Bar
7. CORONATION HALL
8. CLOAKROOM, FIRST AID, TOILETS, INVALIDS' TOILETS, MOTHER AND BABY ROOM
9. CAFETERIA
10. Picnic Lawn
11. Bears
12. Jubilee Gardens (Noah)
13. Kiosk
14. AQUARIUM
15. NORTH ENTRANCE
16. PUSH CHAIRS, WHEEL CHAIRS, LOST CHILDREN
17. PARROT HOUSE
18. Free Flight Aviary
19. APE HOUSE
20. Shop and Kiosk
21. Aviaries and Picnic Lawn
22. 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 & 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. Waterfowl Enclosure
47. Penguins
48. Sealions
49. Rock Garden
50. Polar Bears
51. Big Cat Enclosure
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. Aviary
64. Animal Enclosure
65. Animal Enclosure
66. Ornamental Rock Garden
67. Wallabies and Kangaroos
68. Kangaroo Enclosure
69. Aviary
70. Cheetahs
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. Brown Bears
81. ELEPHANTS
82. Hippos
83. Tapirs
84. Small Mammal House
85. Waterfowl Enclosure
86. Ankole Cattle
87. Emus, Cranes and Flamingos
88. Outside Monkey Enclosures
89. Baboon Pens
90. Cat House
91. Tiger Enclosures

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ANIMAL FEEDING TIMES:

- LIONS—3 pm except Fridays
BEARS—3-15 pm
POLAR BEARS—4 pm
SEA LIONS 3 times daily—
2-30 pm, 3-30 pm, 4-30 pm

ANIMALS MAY BE MOVED
FROM TIME TO TIME

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

SOLOMON ISLAND SKINKS

We are very pleased to inform readers that on December 22nd, 1978, two Solomon Island, or Prehensile-tailed Skinks, (*Corucia zebrata*), were born. This now brings the total to fifteen, eleven of which were born at Chester.

Coming from the Solomon Islands in the western Pacific, these Skinks produce live young which are about six inches long at birth and can grow in four to five years into adults measuring up to two feet. They are coloured green with broken markings of a lighter shade, but specimens differ and can be yellow-green, grey-green, and brown-green. This mixed colouring provides good camouflage in their arboreal surroundings. A further adaptation to life in trees is the tail which can grasp branches as the Skinks climb through the bushes and trees.

The main diet fed to the Skinks in the Tropical House is lettuce, cabbage, greens, fruit, minced meat and boiled egg. The conditions which have been provided for them are obviously suitable as a record of healthy breeding has now been established; 1978 was the fourth successive year of breeding. It is believed that Chester has the only captive breeding colony in the world!

An interesting feature of this birth was that the mother was thought to have passed the time in which she should have produced and perhaps was not pregnant. Not knowing whether to return her to her normal routine it was decided to X-Ray her. Two well formed skeletons of healthy young were seen and in due course a normal birth took place. Two other females were also X-Rayed and one has since produced infertile eggs. The reason for this is believed to be the introduction of a new male. A young male challenged the original breeding male and due to injuries from this fight the old male died. Because of his preoccupation of challenging the old male for the colony it is thought that the new male may have missed the breeding season and was able to fertilise only one female. However, we hope that when this new male is established breeding figures will rise once again.



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

SOLOMON ISLAND SKINKS

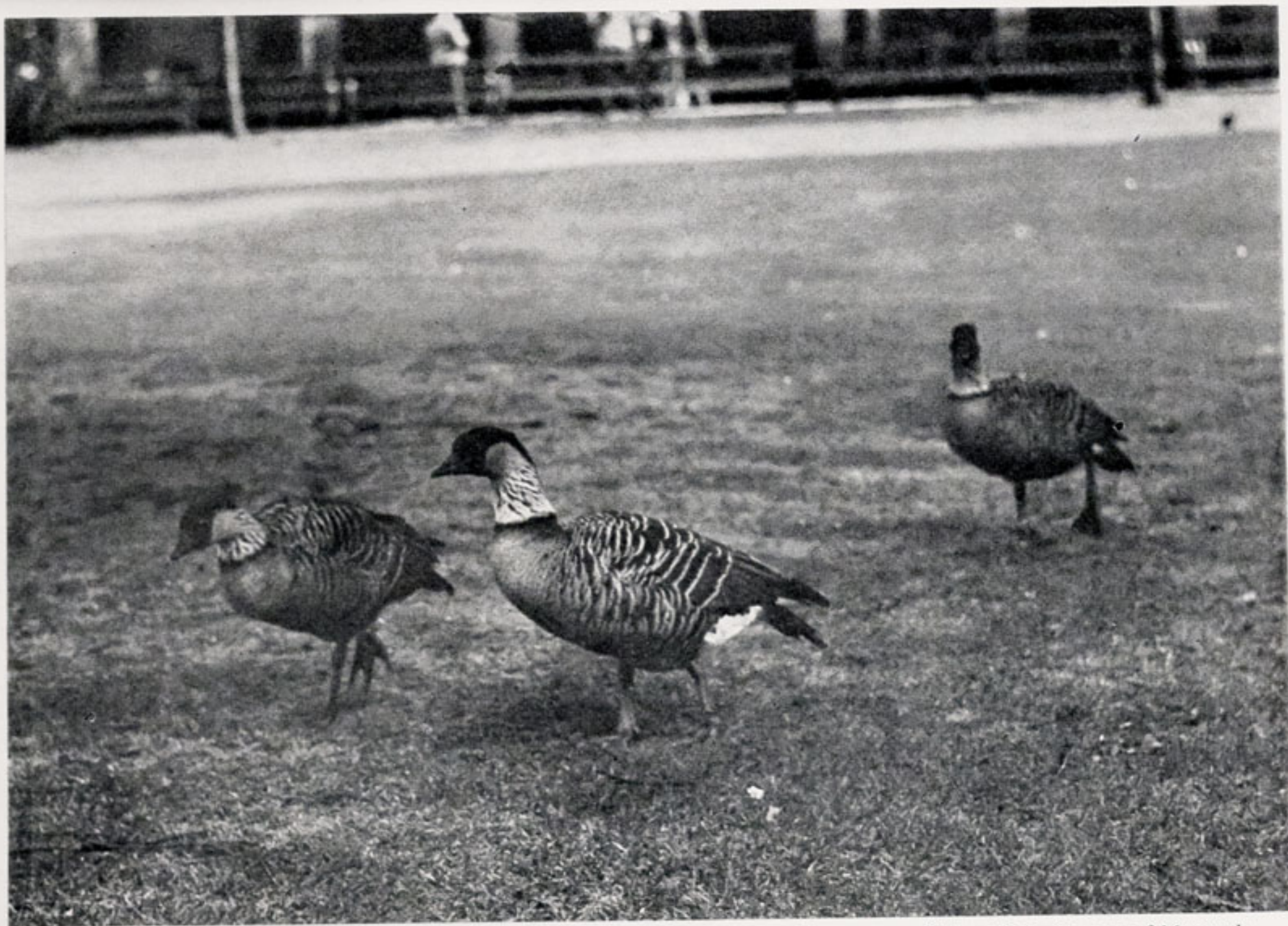
HAWAIIAN GOOSE OR NE NE

Unique to the islands of Hawaii, the Hawaiian Goose or Ne Ne has been the subject of an intense breeding and reintroduction programme for about twenty five years. At one time they were abundant both on Hawaii Island itself and on nearby Maui, they eventually became extinct on the latter, and the world population dropped to a meagre fifty birds. Through the intense efforts of Sir Peter Scott at the Wildfowl Trust at Slimbridge in Gloucestershire a breeding nucleus was established in England from which almost all the birds in the world have been produced. There is also a centre in the Hawaiian islands which is working in close collaboration with the Wildfowl Trust.

The Hawaiian Goose is known locally in its natural home as the Ne Ne, (pronounced nay-nay) and although numbers in captive flocks have been climbing steadily the results of releases of captive bred birds since 1960 appears less encouraging. However, accurate figures are difficult to ascertain because of the wild country in which the birds live. Dr. Janet Kear of the Wildfowl Trust at Slimbridge is quoted in the November 1978 issue of "Oryx" as estimating figures at about two thousand: 1000 in Zoos, 198 in Wildfowl Trust sites, 600 on Hawaii and 150 on Maui. The problem of reintroduction may be that the traditional habitat of the Ne Nes was at a lower altitude than the country they now inhabit. This lower lying country has now been colonised by pigs, rats and mongooses which eat the Ne Nes' eggs and nestlings, and goats which compete with the geese for grazing.

Of medium size, Hawaiian Geese are attractive with dark markings around the head and at the base of the neck; the remainder of the body is greyish-brown barred with buff. The male is slightly darker than the female. A point to note is that the webbing of the feet has become greatly reduced and the legs are much shorter and stronger than those of other geese. These are adaptations to their natural environment where there is little water and a predominantly rocky terrain. However, if this bird does come across any quantity of water, like other geese, it will take to it easily.

Although related to the Canada Goose, the Hawaiian Goose differs in many ways. It is largely ground living and its call and display



HAWAIIAN GEESE

By courtesy of Peter Wait, Curator of Mammals

are also different. It can be quarrelsome and seems to make completely unprovoked attacks on mates that it has lived with quite peacefully in previous years. However, the gander will also defend its territory, mate and brood with great vehemence.

Wild Ne Nes are now found living amongst the vegetation that covers old lava flows on the slopes of the volcanoes of Hawaii. Before the introduction by Man of rats and mongooses to Hawaii they would have had a much wider distribution. Among these old lava flows, pockets which have weathered into soft soil, the Ne Nes build their nests and rear their young. Five to eight creamy white eggs are laid and the incubation period is approximately 30 days; when the nestlings hatch they are covered in a greyish-brown down which becomes duller and more mottled as the chicks mature.

The instigators of the Ne Ne Restoration Programme were faced with various obstacles. At first, the birds reproduced successfully, but this good start did not last. In Hawaii, the breeding farm was situated at Pohakuloa, and there it was found that productivity could be increased by removing the goslings as soon as they were hatched to be reared in incubators. The nest was then destroyed; this prompted the birds to build another nest and mate once more, thus producing a fresh clutch of eggs whilst the original brood were safely reared.

Over the years it was becoming clear that the birds were showing signs of being over inbred. The original birds used had been kept by a Hawaiian rancher as a captive flock and wild blood had not been introduced for a long time. Some years ago a number of birds from a small wild flock on the slopes of the volcano, Mauna Loa, were captured and introduced to the captive flock. Happily, reproduction tripled and the genetic strength of the stock is now much more satisfactory.

When birds are released they bear colour-coded plastic rings on their legs to allow the ornithologists to identify particular birds and know where and when they were released. From the collection of this kind of information it will be possible to build up a picture of the life history, survival and breeding of these birds in the wild, as well as providing a means of counting the wild population.

However, until there is proof that the Ne Ne is thriving in

the wild, it is essential if the species is to survive, for the captive breeding programme to continue.

A pair of these beautiful Geese were recently received from the Wildfowl Trust at Slimbridge and can be seen in Enclosure 87.

GARDENING NEWS

This month special attention is given to the plants growing in the Animal and Bird Houses in the form of pruning back the previous year's growth, making sure the ties will be secure for another year and, when possible cleaning the foliage.

In the Monkey House the line of Bougainvillea growing in the centre is kept at a height of 15 feet and has been established at that for a few years now. All last year's growth has to be pruned back to the old stem. This plant is classed as a shrubby climber and is easily propagated from cuttings whether they are soft or hard wood. The flower is not unlike a sweet pea but belongs to a different family and what is seen are really coloured bracts. To protect itself the stems have strong growing thorns on them.

The most suitable plant we have found to grow between the monkey cages is the Rubber tree. These have been thinned out to let more light through and the foliage has been cleaned.

The roof of the Monkey House has panels of polythene for insulation and we hope to take these down and give them a good wash as dust has got through and is restricting the light.

The Tropical House is undergoing the same kind of Winter work where a more varied collection of plants is growing. Unfortunately, we have that dreaded pest *Mealy bug* in the Tropical House. This pest protects itself with a woolly substance and to kill it with ordinary spraying is difficult, but this is our only method of controlling it during the Summer months. During the Winter the Gardeners have more time to paint the stems of plants after they have been pruned; they are painted with diluted methylated spirits and this penetrates the woolly coat of the *Mealy bug*. Fortunately, this pest does not attack all plants but the main ones to suffer are *Bougainvillea* and *Crotons*.

Rose bushes in beds and borders have been replaced where the quality of the bush had deteriorated; four varieties had to be completely changed. A new variety in the H.T. Rose Garden is *Mischief* which is a coral-salmon colour shaded with carmine. Other varieties changed are *Floribunda* in the garden opposite the Fountain Cafe. These are *Dame of Sark*—orange blooms brightened with yellow, *English Miss*—soft pink and *English Holiday*—brilliant yellow flushed with red.

* * *

It has not been possible to include the article about the Wallace Expedition this month because Mr. Timmis has been sick. We hope he will soon be well again and that we will be able to resume this series in the next issue.

OBITUARY

It is with great regret that we inform readers of the death of Mr. Arthur T. Chesterman, Assistant Accountant of the North of England Zoological Society. He died suddenly on January 4th, after being taken ill at work on the day before. The funeral took place on January 10th at St. Pauls Church, Boughton.

Mr. Chesterman had been at the Zoo for almost eleven years. He was a greatly loved and respected member of staff who took great pride in the quality of his work and who was always prepared to listen to and to help any member of staff who went to him.

Mr. Chesterman is survived by his wife and by his two sons, Ronald and Ian.

SUBSCRIPTIONS

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 shops. An annual subscription (12 issues) costs £2.30, postage paid, which can either be handed over the counter at the shops or posted with the completed form to the Director, 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**

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