

CHESTER ZOO NEWS
AND GUIDE

December 1973

Price 6p



The North of England Zoological Society

ZOOLOGICAL GARDENS, UPTON-BY-CHESTER

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

ANNUAL SUBSCRIPTION — ONE POUND AND FIVE PENCE POSTAGE PAID

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

JAGUARUNDI AND KITTEN (*Felis yagouarundi*)

COVER PHOTOGRAPH . . .

The captivating kitten which is the subject of this month's cover photograph is one of two produced by a pair of Servals (*Felis serval*) currently undergoing a period of six months in quarantine in our Cat House, No. 90. The kittens were born soon after the parents arrived but as we had not bred Servals here before and the kittens are difficult to rear, we wished to make sure they were thriving before releasing details to readers.

. . . AND ON THE LEFT

At long last we have been able to obtain a photograph of the female Jaguarundi (*Felis yagouarundi*), Fara, with one of the two kittens she produced in August. Our photographer has been driven to despair with these animals as on the rare occasions they sit still, their grey coats blend so well with the stone background that the camera cannot pick them out satisfactorily. As it was, only one of the kittens would sit long enough with its mother to enable this photograph to be taken. The Jaguarundi kittens occupy an enclosure in the Cat House next door to that of the female Serval and her family.

MAMMAL BIRTHS

There have been just two births at the zoo during the past month, the first of an Arabian Gazelle fawn (*Gazella arabica*), which is making good progress but at the present time is in quarters off show, and the second, we are delighted to report, of a Black Rhinoceros (*Diceros bicornis*).

This is the third Black Rhino bred at Chester Zoo but the first female calf. Once again the parents are Roger, a male which was bred at Bristol Zoo, and Susie, a female which came from Africa in 1959.



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

COMMON GARFISHES (*Xenetodon cancila*)

The baby Rhino was born just after lunch time on Friday, 30th November, and immediately keepers could see that she was a larger calf than either her two elder brothers had been. The Rhino House had been closed to visitors as soon as staff realised the birth was imminent and it remained locked during the ensuing weekend to enable mother and calf to settle down. However, Linda, as the calf has been named, had no difficulty in suckling and Susie has once more proved an attentive and protective mother. Whenever the baby utters its peculiar, high pitched, most un-Rhino-like squeak, Susie's great bulk lumbers over to it to stand guard.

The male Black Rhino, Roger, is of course separated from the female as he would have no hesitation in attacking the baby. Wild female Black Rhinos associate with males only for mating, although very often they have half grown calves in attendance. In these instances however the calves would have plenty of room to keep out of the way. Between sixteen and eighteen months is the gestation period for the Black Rhinoceros and maturity is not reached until the animals are six years old. The first calf produced by Roger and Susie now lives in the U.S.S.R. and the second, Jaspa, born in February 1971, was sent to Paignton Zoo in March of this year. As far as we know, both these animals are alive and well.

A photograph of the new baby Rhino will be taken for inclusion in the next issue of the "Zoo News".

AQUARIUM NEWS

From this section comes news that the Common Garfishes (*Xenetodon cancila*) have bred again and the young are being reared successfully in nursery tanks. A number of the adult Garfishes, most of which were also bred here, are shown in the photograph on the left.

Among the new arrivals are young specimens of Marbled Headstanders (*Abramites microcephalus*), Cardinal Tetras (*Cheirodon axelrodi*), Rosy Barbs (*Barbus conchoni*), Red-tailed Black Sharks (*Labeo bicolor*) and Red Devil Cichlids (*Cichlasoma erythrum*).

A presentation to the Aquarium included several Rosy Tetras (*Hyphessobrycon rosaceus*), Lemon Tetras (*Hyphessobrycon pulchripinnis*), Golden Barbs (*Barbus gelius*), a Golden Oscar (*Astronotus ocellatus*) and a Checker Barb (*Barbus oligolepis*). Most of these fishes were already represented in the Aquarium and have joined communities of their own species. One exception, the Checker Barb, can be seen in a tank with Neon Tetras. This little Barb grows to between one and two inches long and its home is Sumatra.

The Pacu (*Colossoma sp.*) is a fish not often kept in aquariums, as its stocky body grows to well over two feet long. During the past month, three young Pacus were obtained, each about four inches in length, and at the time of writing these are undergoing a brief period of observation "behind the scenes". The Pacu is found in northern South America and is an interesting species in that it is reputed to feed mainly on fruit. The specimens in the Aquarium have accepted fruit and are also taking other kinds of food such as plants, worms, meat and a little fish.

One variety of Pacu displays a greyish green back and upper sides with a black belly and lower sides. The fishes we have acquired have been described as Black Pacus but we will have to wait until they attain maturity to see if their colours vary.

A number of young Texas Cichlids (*Herichthys cyanoguttatum*) are also in a tank off show, awaiting transfer to one of the main tanks. This species is found in north east Mexico and in Texas and in fact is the only cichlid native to the United States. Adults can grow to twelve inches long and are basically pale green with small bright green spots covering the body.



MARBLED HEADSTANDER (*Abramites microcephalus*)

Brian Pengelley

CHESTER ZOO

THE NORTH OF ENGLAND
ZOOLOGICAL SOCIETY
ZOOLOGICAL GARDENS

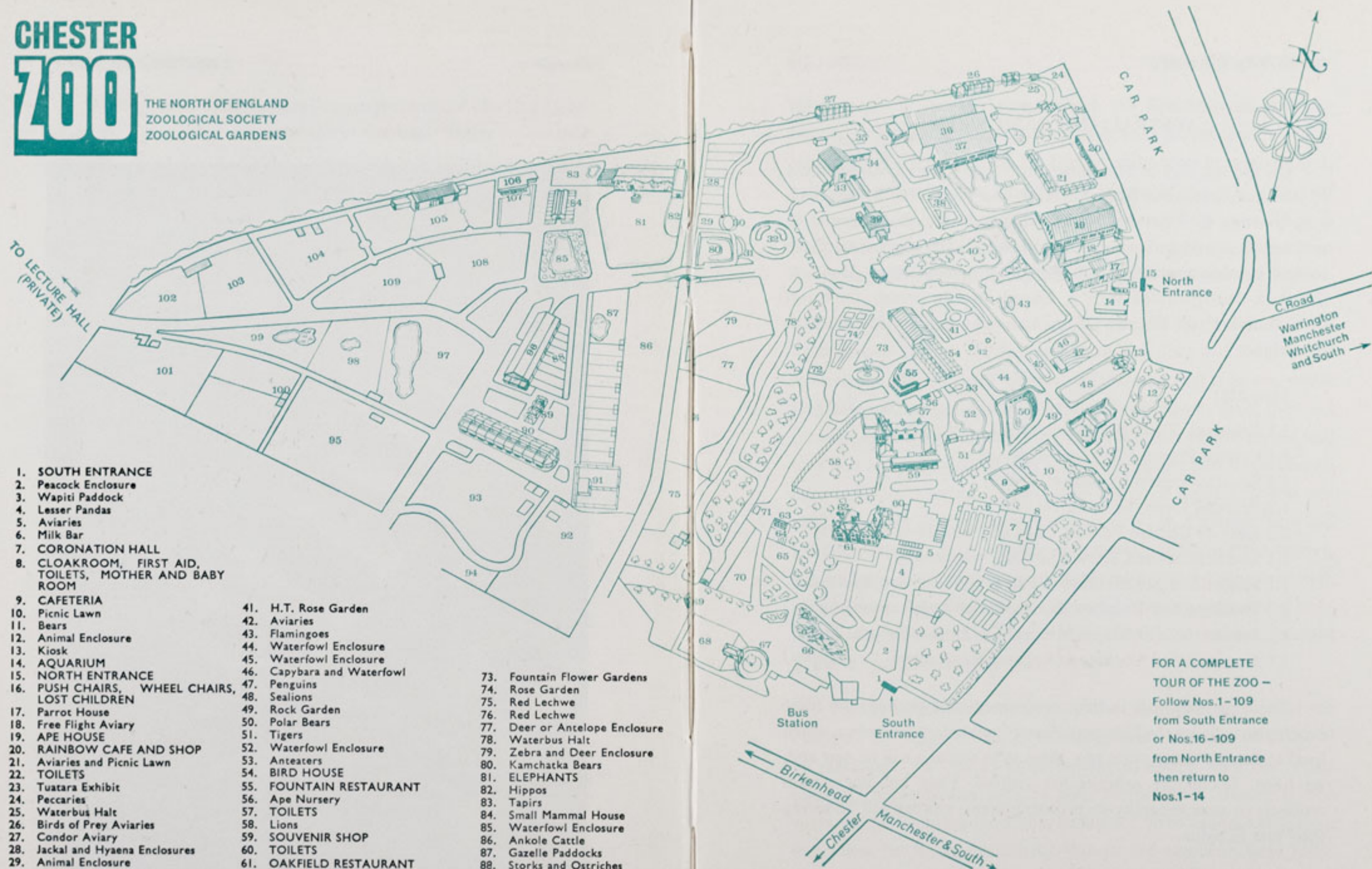
TO LECTURE HALL
(PRIVATE)

- | | |
|--|--|
| 1. SOUTH ENTRANCE | 41. H.T. Rose Garden |
| 2. Peacock Enclosure | 42. Aviaries |
| 3. Wapiti Paddock | 43. Flamingoes |
| 4. Lesser Pandas | 44. Waterfowl Enclosure |
| 5. Aviaries | 45. Waterfowl Enclosure |
| 6. Milk Bar | 46. Capybara and Waterfowl |
| 7. CORONATION HALL | 47. Penguins |
| 8. CLOAKROOM, FIRST AID,
TOILETS, MOTHER AND BABY
ROOM | 48. Sealions |
| 9. CAFETERIA | 49. Rock Garden |
| 10. Picnic Lawn | 50. Polar Bears |
| 11. Bears | 51. Tigers |
| 12. Animal Enclosure | 52. Waterfowl Enclosure |
| 13. Kiosk | 53. Anteaters |
| 14. AQUARIUM | 54. BIRD HOUSE |
| 15. NORTH ENTRANCE | 55. FOUNTAIN RESTAURANT |
| 16. PUSH CHAIRS, WHEEL CHAIRS,
LOST CHILDREN | 56. Ape Nursery |
| 17. Parrot House | 57. TOILETS |
| 18. Free Flight Aviary | 58. Lions |
| 19. APE HOUSE | 59. SOUVENIR SHOP |
| 20. RAINBOW CAFE AND SHOP | 60. TOILETS |
| 21. Aviaries and Picnic Lawn | 61. OAKFIELD RESTAURANT |
| 22. TOILETS | 62. G.P.O. Telephone |
| 23. Tuatara Exhibit | 63. Gibbon Pen |
| 24. Peccaries | 64. Animal Enclosure |
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| 26. Birds of Prey Aviaries | 66. Ornamental Rock Garden |
| 27. Condor Aviary | 67. Malayan Bears |
| 28. Jackal and Hyaena Enclosures | 68. Animal Enclosure |
| 29. Animal Enclosure | 69. Aviary |
| 30. Porcupine Enclosure | 70. Wallabies |
| 31. Coypus | 71. WATERBUS BOOKING OFFICE
AND KIOSK |
| 32. Beavers | 72. Waterbus Halt |
| 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 | |

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|--------------------------------|
| 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 |

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|--------------------------------|
| 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

AUSTRALIAN CONSIGNMENT

On the last day of November, in freezing fog, a consignment of mammals and birds from Adelaide Zoo began the last leg of its long journey to Chester. The specimens had left Australia in summer heat and arrived at London Airport in the midst of the coldest weather experienced in Britain for some time. However they had been provided with a heated van in which to travel from London to Chester Zoo and all arrived in excellent condition.

They are:

- 1.1 Echidnas (*Tachyglossus aculeatus*)
- 1.1 Crested Pigeon (*Ocyphaps lophotes*)
- 1.1 Squatter Pigeon (*Geophaps scripta*)
- 1.1 Peaceful Dove (*Geopelia placida*)
- 2.2 King or Chinese Painted Quail (*Excalfactoria chinensis*)
- 1.1 Southern Stone Curlew (*Burhinus magnirostris*)
- 1.1 Splendid or Scarlet-chested Parrot (*Neophema splendida*)
- 2.2 Swainson's or Rainbow Lorikeet (*Trichoglossus moluccanus*)
- 1.1 Leadbeater's or Major Mitchell Cockatoo (*Kakatoe lead-*
- 1.1 Slender-billed Cockatoo (*Kakatoe tenuirostris*) *beateri*)

The only mammals in this consignment and perhaps the most exciting arrivals are the Echidnas. Apart from a single specimen which lived at the zoo many years ago, these little animals will be new and, we hope, fascinating exhibits for visitors. They are uncommon residents in zoos generally so probably many visitors will be seeing their first Echidna.

In preparation for their arrival, one of the spacious central enclosures in the Tropical House was modified. Formerly it had been occupied by Giant Tortoises. The work involved mainly the construction of a cement perimeter wall, using the existing railings as a foundation. The floor of the enclosure has been covered with a

thick carpet of leaves through which the Echidnas can root for insects. For sleeping purposes they have been provided with hollow logs. Individuals are reported to become quite tame in captivity and, rather surprisingly, this little animal is one of the few species of mammal which has a potential life span of over fifty years. There is one well authenticated record of an Echidna, which was fully grown on arrival, having lived in captivity for just over forty-nine years.

Less than a hundred years ago though, the world did not know what sort of animals the five species of Echidnas and their closest relative, the Duck-billed Platypus, really were—that is to say, where they belonged in the scheme of animal classification. True, they had fur and possessed milk-secreting glands like other mammals but also they had bony shoulder girdles similar to reptiles and single cloacal openings, characteristic of birds and again of reptiles. It was not until 1884 that a young zoologist named W. H. Caldwell, who had gone to Australia with the express intention of finding the answer, proved beyond doubt that the Platypus was an egg-laying mammal. At just about the same time as Caldwell broke this astonishing news to the scientific world, a man named William Haacke obtained Echidna eggs in Adelaide.

The Echidnas, known also as the Spiny Anteaters, and the Platypus, belong to the order of monotremes, the most primitive of all mammals. As well as those mentioned above, they bear other unusual characteristics such as poor temperature control, poison spurs, in the Echidnas the ability to fast for up to a month and, most important, the laying of leathery, thin-shelled eggs with large yolks.

All six species of monotremes are confined to the Australasian region but the Echidnas are the more widely distributed. The three species in the genus *Zaglossus* are all found in New Guinea. The two species in the genus *Tachyglossus* have a combined range from New

Guinea to Tasmania. The Tasmanian Echidna (*Tachyglossus setosus*) is larger than the Australian mainland form and its spines are shorter.

The species we have acquired, the Australian Echidna (*Tachyglossus aculeatus*), bears spines up to two and a half inches long on its back and sides. These spines are quite dense and are whitish yellow with black tips. On its head and ventral surface it has coarse fur which varies from blackish to light brown. Adult Echidnas average sixteen inches from their heads to their stumpy tails and males tend to be a little larger than females.

The Echidna's nostrils and tiny mouth are positioned at the end of a long, leathery snout. It has no teeth, just a long, sticky tongue with which it can catch up the ants and termites that are the principal items in its diet. Each of its feet has five digits equipped with strong claws and the second toe of each hind foot bears an elongated grooming claw designed to reach the coarse fur between the spines. As this description of its claws suggests, the Echidna is an expert digger and can rip apart a termite mound without much difficulty. Its first line of defence is to dig itself rapidly into the earth until only the sharp spines are visible above the surface. If the earth proves too hard, a rare occurrence as this is an extremely strong little creature, the Echidna will roll itself into a ball in the manner of a Hedgehog.

The name Echidna is derived from the Greek work *ekhidna* meaning "viper" and refers to the poison spurs present on the hind legs of the male. Actually this name is misleading as the Echidna's poison is relatively harmless, unlike that from the Platypus which can cause a painful wound. In common with the Platypus, the Echidna has an excellent sense of smell but tiny eyes and poor eyesight. It has been recorded as active both at night and during the day but is probably more a nocturnal animal, which no doubt is one reason why it is not often seen in the wild state. Protection by law for

the Echidnas has existed since 1905 and they are in no danger of becoming extinct.

From the point of view of the nineteenth century zoologists, and probably many modern ones as well, the most fascinating aspect of the monotremes was their reproduction. The female Echidna has milk-secreting glands but no teats, an anomaly which baffled early scientists and was a major argument employed by opponents of the theory that the Platypus and Echidnas were true mammals. What actually happens is that the thick yellowish milk is secreted through pores in the skin directly into the female's pouch where the baby licks it from her fur.

This pouch of skin develops on the female's ventral surface shortly before she produces the single, large yolked egg. The egg passes from her cloaca into the pouch and is incubated for a period of seven to ten days, when the young Echidna hatches. At this stage the baby is minute, barely half an inch in length, and until it is ready to leave the pouch, at about eight weeks old, it obtains all its nourishment from its mother's milk. By the time it emerges it has grown to about four inches long and is now lodged in a safe hiding place chosen by the female. The Echidna becomes sexually mature at one year old.

To breed the Echidna successfully would be a wonderful achievement as this species has reproduced rarely outside Australia and in the majority of these cases the baby has died. Certainly every effort will be made to provide the pair of Echidnas with conditions congenial with breeding.

The rest of the Australian consignment consisted of birds and three of these species have also been housed in the Tropical House. The pairs of Crested and Squatter Pigeons have been accommodated together in one of the upper aviaries and a few yards away on the

same level is the aviary housing the two pairs of King Quail. Incidentally the aviculturalists amongst our readers may be surprised to see species in the consignment which can be purchased in this country. The reason for bringing pairs from Australia was to obtain fresh blood stocks.

The Southern Stone Curlews are now occupying a flight adjoining the Temperate Bird House and the Leadbeater's Cockatoos, both young specimens, and the Slender-billed Cockatoos can be seen in the Parrot House. At the time of writing the Peaceful Doves, Splendid and Rainbow Lorikeets are not yet on show.

BIRD NOTES

In addition to the various Australian birds which have arrived, there is a new Lesser Sulphur Crested Cockatoo (*Kakatoe sulphurea*). This bird was a presentation and has joined a mixed group of Cockatoos in the Parrot House.

Two Thailand Hoopoes (*Upupa epops longirostris*) are also new arrivals in this section. The pair has been released into one of the long planted flights adjoining the Temperate Bird House, No. 54. Including the Thailand race, there are nine sub-species of Hoopoes which differ only slightly from each other. In appearance these Thailand Hoopoes, with their fawnish pink, black and white plumage, look very like the European race which occurs occasionally in this country.

NEW ENCLOSURES

During 1973 work has been continuing in the area of sites No. 100 and 101 (see Zoo Plan) on the conversion of the existing paddocks to the aha principle. Since the last issue, another enclosure has been completed and this is now occupied by the group of Alpacas.

The indoor quarters on this site are faced with red sandstone and incorporate a hay store. The object behind the latter provision is to facilitate the distribution of hay to the outlying paddocks in this area. The arrangement will be particularly beneficial in bad weather as the main hay store is situated on the other side of the zoo.

Soil from the aha excavations has been piled against the sides and rear of the indoor quarters to form a partial hillock which the animals can climb. This creates a little more interest in what would otherwise have been a flat expanse and also masks the house from the rear of the enclosure. Apart from a small area of concrete, the enclosure itself is grassed. Several mature trees are contained within the boundary of the paddock and in one corner a low sandstone wall will protect a recently planted Manchester Poplar and circle of *Berberis wilsonii* hybrids, while they become established. As well as looking pleasant, the trees will provide shade for the animals.

Work is now progressing on the two remaining enclosures in this group. By the time these are finished the public pathway will have been extended along the western and southern boundaries, will link up with the existing pathway between enclosures 100 and 95 and eventually join the main drive which passes in front of the Monkey House.

GARDENING NEWS

Three of the rose beds in the gardens are being replanted this winter; this becomes necessary from time to time. A number of the beds and borders were planted between eighteen and twenty years ago and after such a long period the bushes lose their vigour and consequently produce less and weaker growth resulting in fewer flowers. We remove the top twelve inches of soil from the beds, dig manure into the exposed layer and then fill up with new earth. This gives the new bushes a good start and a long life.

In one of the beds we are planting H.T. Mr. Lincoln which is a deep crimson, very fragrant variety and replaces Josephine Bruce. Standards of Whisky Mac will also be planted in this bed. Another bed is being planted with the H.T. variety Cheshire Life which is a recent introduction with vermilion orange blooms. Incidentally these Roses were kindly presented to the Society by the magazine of the same name. The standards here will be Diorama. The third bed is in the Fountain Restaurant Floribunda Rose Garden where the variety Countess of Dalkeith is being replaced with Korbell which is salmon orange in colour.

As is usual, one does lose the odd bush from an otherwise good rose bed and here we have to replant. Some of the varieties which have been planted for a long time often have been substituted with newer varieties in the catalogues; in such cases we have to find one which is as similar as possible to that in the bed.

We are now making new beds and borders around the recently constructed enclosures already mentioned in this issue. These will be planted with trees and a collection of flowering shrubs from our own nursery. At the back of this area we are also planting a screen of poplars and laurels which will provide a windbreak for the animals in the new enclosures.

SUBSCRIPTION FORMS

New readers of the CHESTER ZOO NEWS who would like to receive the magazine regularly may be interested to know that subscription forms can be obtained from the souvenir shop. An annual subscription (12 issues) costs £1.05, postage paid, which can either be handed over the counter at the shop or posted with the completed form to the Director-Secretary, Chester Zoo, Chester.

**WE WOULD LIKE TO WISH ALL OUR READERS
A VERY MERRY CHRISTMAS
AND A HAPPY NEW YEAR**

The following notice is displayed on several boards in the grounds

Please comply with it at all times.

FEEDING OF ANIMALS AND BIRDS

IT IS AN OFFENCE for any member of the public to offer food of any description to any Animal or Bird in Chester Zoo.

This regulation is made for the sake of the health of the Animals and Birds. Since the NO FEEDING rule was introduced, the number of deaths has dropped appreciably and sickness, due to wrong feeding has been virtually eliminated.

What you may be offering to an animal may only be a sweet or an inoffensive piece of bread, but it can mean a death sentence for the animal. For example, a cough drop, which may relieve your cough, can cause instant death to many Animals and Birds in the Zoo.

You must not lose sight of the fact that you are only one of over a million visitors who visit the Zoo annually. If for instance an elephant had one bun from only one tenth of a day's visitors during the summer, it would eat between three and four thousand. You can guess the result.

We realise what a temptation it is for visitors, particularly children, to feed our Animals and Birds and this is why we invite members of the public to be present at the official feeding times.

This is a polite warning to you, asking you not to feed the animals. If you ignore it, the Keepers are authorised to ask you to leave the Gardens.

If you really love Animals and Birds, you will appreciate the wisdom of the ruling — No Feeding by members of the public.

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

Printed in England by
G. R. Griffith Ltd.
Castle Printing Works
Chester
