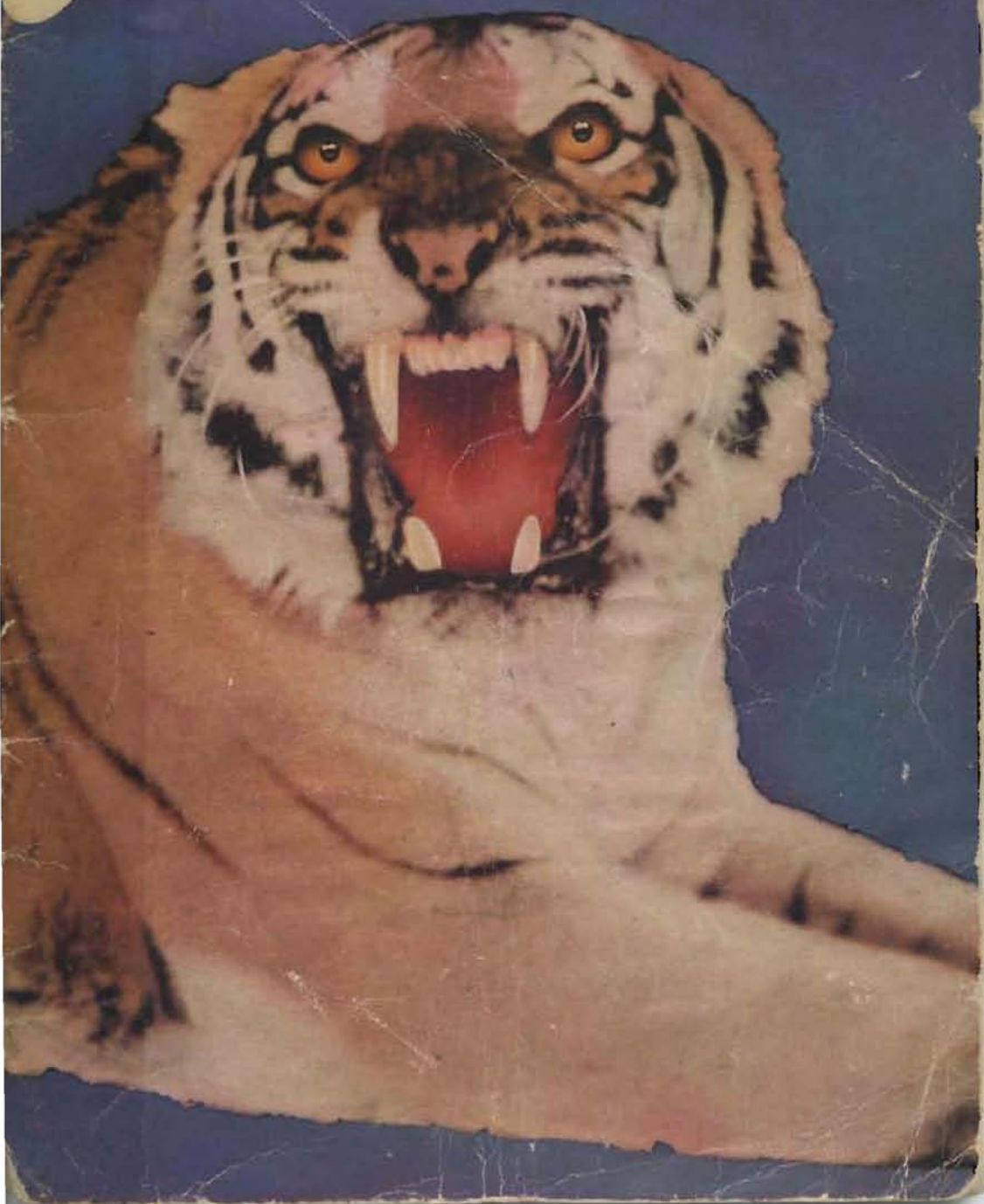


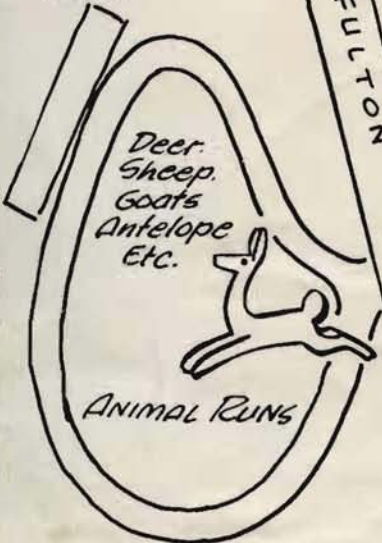
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Cleveland 700





BEAR
DENS



Deer
Sheep
Goats
Antelope
Etc.

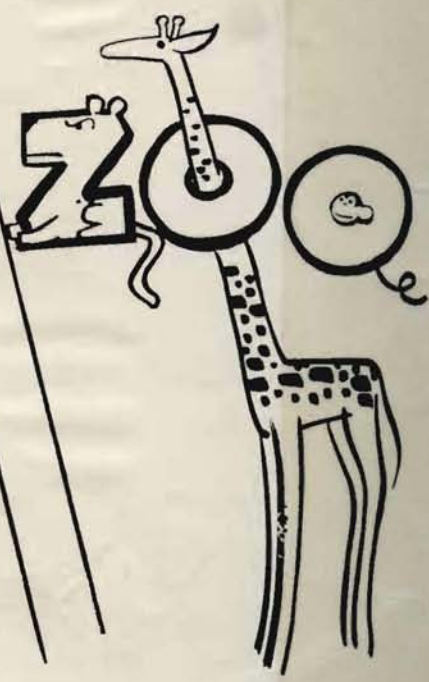
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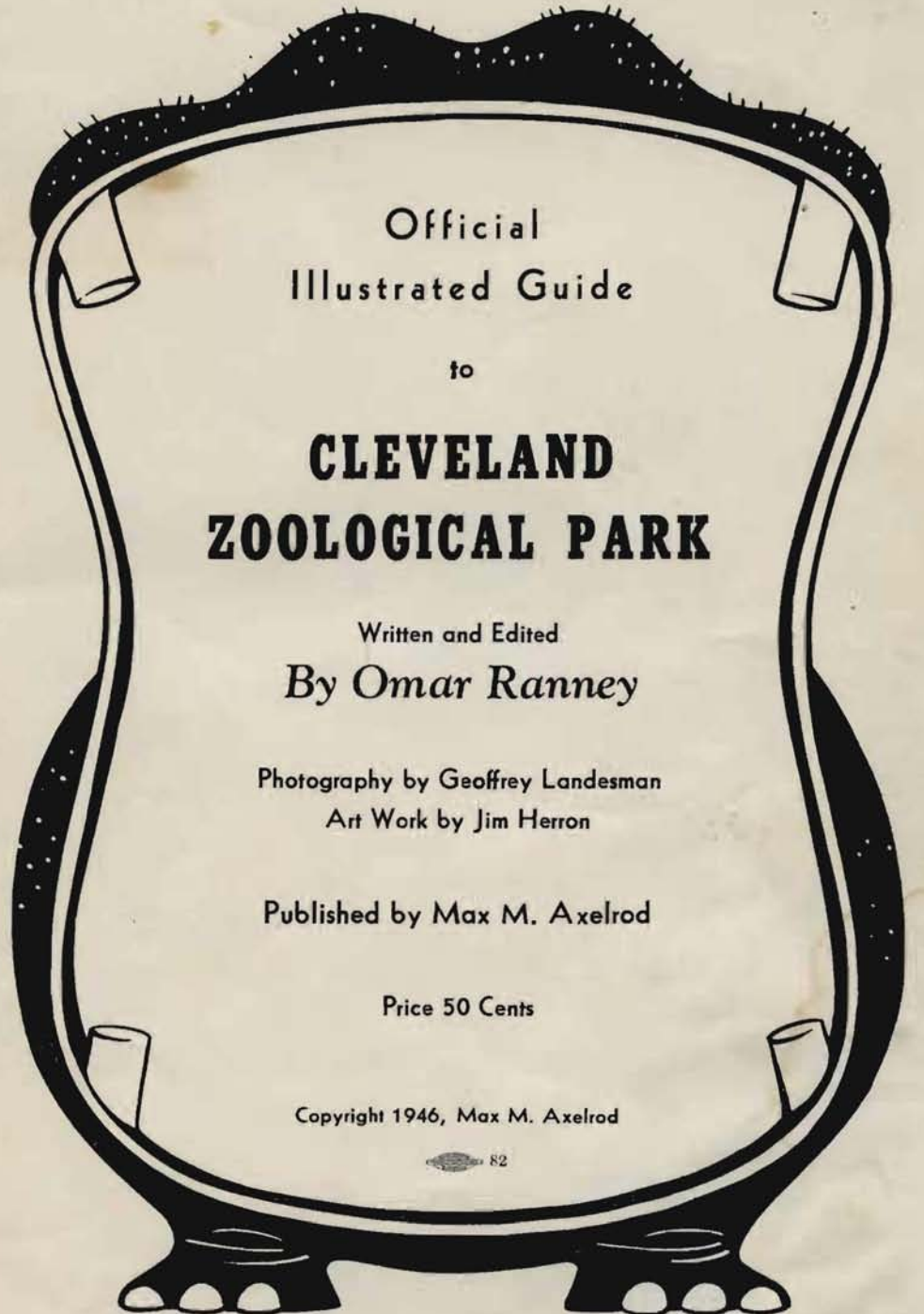
FULTON
RD.
BRIDGE

ZOO RAILROAD
PARKING

PARKING
ENTRANCE

BIG CREEK





Official
Illustrated Guide
to
**CLEVELAND
ZOOLOGICAL PARK**

Written and Edited
By Omar Ranney

Photography by Geoffrey Landesman
Art Work by Jim Herron

Published by Max M. Axelrod

Price 50 Cents

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WISE GUY



BARRED OWL

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Foreword

The people of Cleveland have long shown their interest in Natural History. As far back as 1846 there was established the Cleveland Academy of Natural Sciences which devoted much attention to the exhibition and study of all forms of animal life then so abundant in the fields, forests, streams and lakes of this region. That Academy is the ancestor of the present Cleveland Museum of Natural History.

As the City grew and its residents had fewer opportunities to enjoy the pleasures of nature there developed during the 1880's an awareness of the need for parks. Wade Park was given to the city in 1882 and in that park were placed a few deer. Soon public interest called for other animals and for a small building erected in 1889 in which they might be housed. For the succeeding seventeen years Wade Park was a favored spot in the City to which to take children.

When the area around Wade Park developed into an attractive residential section and was recognized as the most suitable location for The Cleveland Museum of Art the desirability of moving the Zoological collection to another location became clear. Brookside Park was chosen for the purpose and about 1916 the change was made.

With enlarged collections it soon became evident that the successful operation of a Zoological Park requires continuous, scientific guidance. As far back as 1926 efforts were made by important civic groups to have the management of the Zoological Gardens in Brookside Park entrusted to The Cleveland Museum of Natural History. These efforts, renewed at various times, finally resulted in placing such control in the Museum as of October 1, 1940. On all sides it was recognized that, even with such facts as were then known, the task of developing a modern Zoological Park from the nearly obsolete thirty-year-old plant would not be an easy one. However, the experience of other cities in which modern Zoological Parks have proven highly successful gave faith that a way through all difficulties could be found. In spite of all handicaps, including many which unexpectedly arose because of the War, the public response to efforts to improve the present Zoo and to develop plans for its future has been highly encouraging. This helpful attitude was indicated by the unanimous action of the City Council dedicating in October, 1944, the portion of Brookside Park lying East of the Fulton Avenue Viaduct to the purposes of a Zoological Park. The Westerly portion of Brookside Park is to be developed by the City as an area for active recreation and will ultimately be connected by a parkway with the Metropolitan Park System. When completed this entire project should bring to this Community one of the finest centers for wholesome and interesting recreation for persons of all ages that any City has ever developed.

The funds needed to operate the Cleveland Zoological Park, exclusive of receipts from concessions, are provided by the City of Cleveland, the function of the Museum being to manage the enterprise



as a matter of public service. Since 1940 the collection of animals has been added to and in large measure rebuilt from funds contributed by those who have enrolled as "Friends of The Cleveland Zoo" in annual campaigns.

A fortunate choice was made when in February, 1942, Fletcher A. Reynolds was secured as Director of the Cleveland Zoological Park. To an excellent background of experience he has joined a willingness to work untiringly to build a Zoological Park that can serve this community as one of its greatest recreational and educational assets.

It is a happy circumstance that this, our first Guide Book, could be written and edited by Mr. Omar Ranney. Although for several years Mr. Ranney has been widely known as the Motion Picture and Theater Editor of The Cleveland Press, his earlier interest in the development of The Cleveland Zoological Park has never been allowed to flag, and has continued to be an important contributing factor to the progress which has been made.

Harold T. Clark

(signed) HAROLD T. CLARK

President, The Cleveland Museum of Natural History and Chairman, Board of Control, The Cleveland Zoological Park.

June 1, 1946



FLOATING VELVET

(The Mute Swan)

THE CLEVELAND ZOOLOGICAL PARK

Officers and Board of Control

June 1, 1946

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* * *

BARNUM WAS RIGHT

"Every one in these enlightened days concedes that human nature imperatively demands amusement and recreation. The childish mind, to which all the world is yet fresh and interesting, and the jaded brain of the adult call with equal insistence for 'something new and strange.' Granted the necessity of amusements and the desirability of their being morally clean and healthful and instructive, the provider of such entertainments is a public benefactor."—From "The Wild Beasts, Birds and Reptiles of the World: The Story of their Capture" by P. T. Barnum—April, 1888.





MEET THE DIRECTOR

A day in the life of the zoo director is a busy one. Maybe there's a trimming job on the elephant's toe nails to be supervised. Or a litter of cubs has arrived overnight in the lion's cage. Or it's time to toot the first whistle for the zoo train's initial run of the season. But here Fletcher A. Reynolds is shown taking a few moments out to make friends with Petey, the Humboldt penguin.

From his office in the main animal building, Director Reynolds oversees a strange community. There are approximately 1,000 specimens of wild life—swans from Australia, tigers from India, monkeys from Africa and Central America, bears from the Arctic, zebra from the African plains. Nearly every habitat of the world is represented.

Mr. Reynolds has had wide experience. Before becoming director of the Cleveland Zoo in 1942 he was curator of the Briarcliff Zoological Gardens in Atlanta, Ga., and curator of mammals and reptiles in Toledo Zoo. He also has collected animals on two expeditions to Central America

in jungles as wild as any place in the world, being associated at the time with John T. Benson, American representative for Karl Hagenbeck.

WILDLIFE PHOTOGRAPHY

The intimate closeups of the zoo animals in this book are all the work of Geoffrey Landesman. As official zoo photographer, he not only shows a love and understanding of wildlife, but demonstrates a fine artistic ability to capture their moods through the lens of his camera.

The Royal Bengal Tiger on the cover is from a Kodachrome which Mr. Landesman "shot" while he stood in one end of the cage and the animal crouched in the other.

Wild animals, he explains, have always interested him, and at various times he has taken on as pets such things as raccoons, wolf-whelps, snakes, prairie dogs and even an ant eater. One of Cleveland's busiest photographers, his greatest joy is to take a busman's holiday at the zoo with his camera. Besides Cleveland Zoo, Mr. Landesman has photographed animal life in zoos in Vienna, London, Rome, Hamburg, St. Louis, Detroit, the New York Bronx, Denver and he now has more than 4,500 negatives in his wildlife collection.

The Animal Kingdom

The more we see and the more we know of the world of nature around us, the more fascinating does it become. A peaceful-looking meadow on a summer's day is, in reality, teeming with animal life. And even in our own yard, if we submitted it to a close enough inspection, we would find an astonishing number of animal forms, enacting a never-ending drama of butterflies and beetles, birds and bumblebees. How exciting it is, then, even to contemplate broadening that focus to take in all the forests and fields, all the mountain slopes and river valleys of the earth, from the frigid polar region of the North to the steaming jungles of the tropics! Indeed, there is such a myriad of species that even to men of science today there are still unopened doors to discovery in this strange world.

To become even casually acquainted with animal life, it is of course necessary to proceed in some orderly manner. Animals include everything from the microscopic one-celled amoeba on up to highly developed man, and they are classified first of all in two main Divisions—the vertebrates and invertebrates. Vertebrates include all animals that possess a spinal cord. Externally, they differ widely, but be they gorillas or humming birds they have that one common characteristic.

Vertebrates, in turn, are divided into five Classes—Fishes, Amphibians, Reptiles, Birds and Mammals. From that point they are subdivided into Orders. And under mammals, which we will consider first, we shall look into five Orders—Primates (apes, monkeys and lemurs), Rodents (gnawing animals), Carnivores (the flesh eaters), Ungulates (the hoofed animals), and Marsupials (pouched animals). Beyond the Orders, animals are still further subdivided into Families, Genera and Species.

Mammals are of many forms. Although primarily creatures of the land, there are some—the bats—that fly. Some, too, live in the sea. But they have certain characteristics that set them apart from other vertebrates. Any animal that suckles its young belongs to this Class. Mammals also have hair. While some, like the whales, dolphins, elephants and armadillos, have very little, they all possess it at some time during their lives. Mammals, in addition, have two pairs of limbs, and most of them have tails. In all these distinctive features Nature has employed a diversity that is amazingly ingenious, each species possessing some peculiar adaptation that so far has enabled it to survive in a great struggle for existence. These are matters which we shall explore as we take a trip around the animal world in the pages of this book.





Primates comprise the order of mammals consisting of man, apes, monkeys and lemurs. The word "primate" means "of the first," and is used because this is the highest order in the animal kingdom. Some of the characteristics common to the group are agility in trees, and the fact that both hands and feet are used as grasping organs. Collectively they are considered, next to man, the most highly developed of the mammals.

THE GREAT APES

There are four types of apes—the gorilla, chimpanzee, (the only one of this group which we now have at Cleveland Zoo), the orang-utan and gibbon. The gorilla is the largest and structurally the closest to man. The orang-utan is the only anthropoid ape with red hair, and the gibbon, with its white-framed black face, is the smallest and most dextrous.

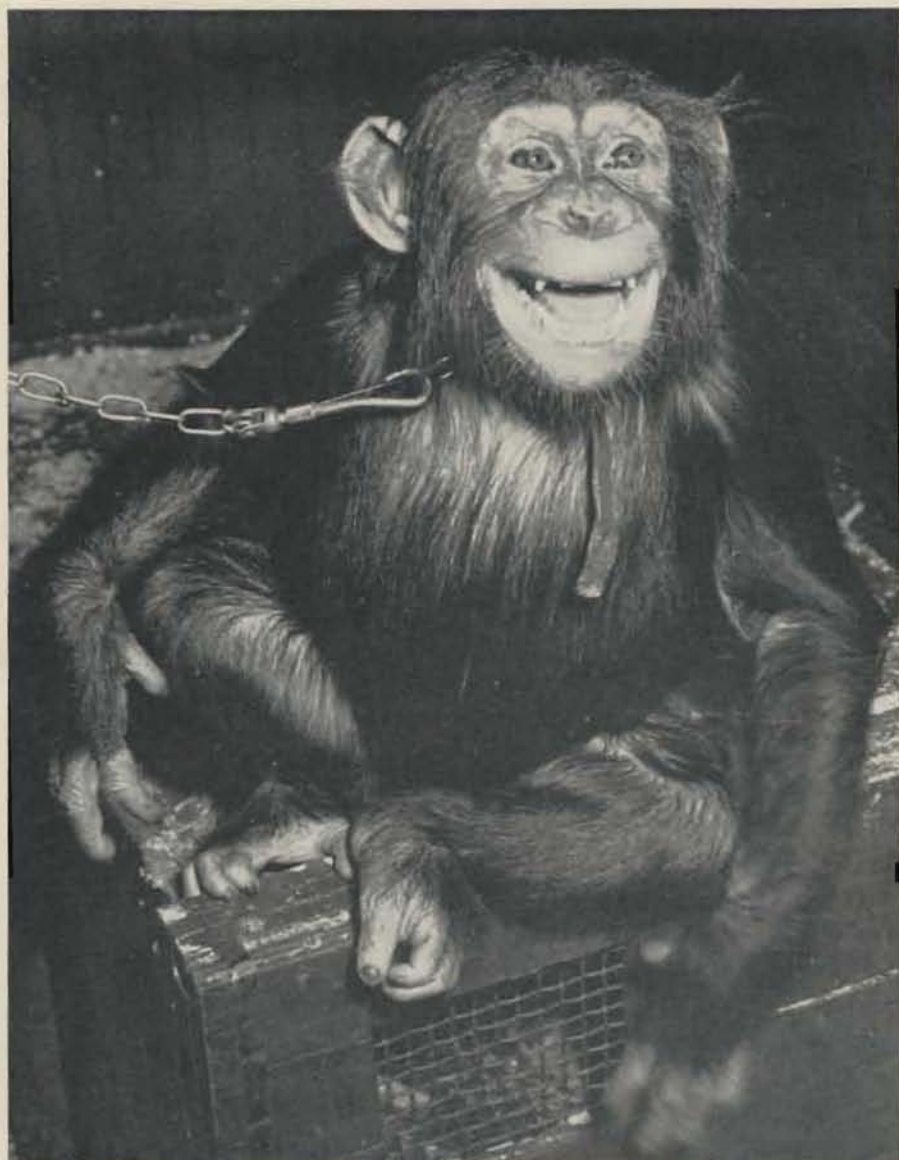
The Chimpanzee is a regular clown with its sad face, oversized ears and long arms. It is the most popular of the apes because it is the most adaptable and can be trained to wear clothes and do tricks. A born entertainer, the chimp loves an audience, and will stamp its feet, shake the bars of its cage and go into a wild dance if it is in the mood.

Native to Africa, this excitable creature is not safe to handle after about six years of age, when it usually goes savage. Many authorities believe that the chimp, next to man, is the most intelligent of all mammals and that it is this, plus its agility, that has enabled it to survive.

MONKEYS

Monkeys are divided into two groups—the New World and the Old World. The New World monkeys are found in Central and South America and many of them are equipped with a prehensile tail (one that will grasp and hold on to an object). This is found only in New World monkeys. The Old World monkeys are found in India, Siam, the Malay Peninsula, Dutch East Indies, and Africa. While they all have tails, they cannot swing by them as the New World monkeys do. Many of them have cheek pouches for storing food, a convenience that is not afforded their New World brethren.

In the Old World group we have the moustached monkey, Diana



(The Chimpanzee)

JUNGLE JOKER

monkey, rhesus monkey, pig tail monkey, green monkey, sooty mangabey, crab-eating macaque and the white-nosed monkey.

The Rhesus and Pig-tailed Monkeys are probably the best known of the macaques, a genus that is widely distributed throughout India, Borneo and Sumatra. The rhesus is sent to this country in large numbers for use in medical research. The pig-tailed is native to Sumatra, where it is trained to collect cocoanuts. They have quite a sense of humor and enjoy aiming the fruit at luckless passers-by. These nimble creatures are light fawn in color, with a dark brown streak on the top of the head and along the back.

The Crab-eating Macaque will actually eat almost anything. Fruits of course are always acceptable, but for a luscious dessert, they like nothing better than insects, lizards, crabs and oysters. As with most other monkeys, the macaque should be captured young, as the older he is, the less useful, and worse tempered he becomes.

The Sooty Mangabey is a large monkey, from the African west coast. All monkeys are curious, but this fellow is even more so. He is sometimes called the White Eyelid Monkey, for he has white eyelids which



(Golden Rhesus)

So I ate your banana! Want to make something of it?



(Sooty Mangabey)

If I weren't a gentleman I'd laugh in that gal's face. What a hat!

he has a habit of blinking as if he were flirting. His more common name, however, indicates his most distinctive feature—a sooty-colored coat.

The Green Monkey is one of the most beautiful as to coloring, and its name of course is derived from the shade of its fur. Each separate hair is black and yellow, which gives the creature a rich, greenish hue. The under-parts of the body are white, and over the sides of its face is a golden yellow fringe.

The Diana Monkey is named after the mythological goddess of the moon because of the suggestion of a crescent on its forehead. It is a colorful creature with its chestnut colored back, orange abdomen and thighs, and a striking strip of white under the chin and across the chest and arms. On its chin is a sharply pointed beard of which it is extremely proud.

The White-nosed and Moustached Monkeys both come from West Africa. The white-nosed not only has a white spot on its nose but has a white fringe around its face. Its fur is mostly olive-green and its disposition uncertain.



Above is the African Green monkey whose touch of white fur sets off his green coat to good advantage. In the center is the moustached monkey and on the far right are two Diana monkeys who seem to be considering a serious problem.

At the Cleveland Zoo we have two New World monkeys—the Spider and the Capuchin.

The Spider Monkey's tail is so adept it acts as another hand, and since it is smooth on the under side it clings easily to a tree. Its name is decidedly descriptive, for with its pot-bellied body and arms, legs and tail flailing out in all directions it is spider-like in appearance.

The Capuchin Monkey is so called because of the way the hair grows on its forehead. The word capuchin means hood or cowl and this little fellow looks as though he's wearing one. They are found all the way from Central America to southern Brazil and their intelligent alertness has made them the business partner of many an organ grinder. There are several kinds of capuchins and at Cleveland Zoo you will find two, the weeper (thus named because of its mournful cry) and the white throated.

THE LEMURS

In appearance the lemurs don't seem to fit into the order of Primates at all. They are small and inoffensive and not very intelligent. However, their teeth are similar to those of the other monkeys and they are nearly all tree-dwellers. Most of them are found on the island of Madagascar, and it is significant that no large flesh-eating animals dwell there. The lemurs could never survive against large, active enemies. The word "lemur" means "a night-wandering ghost," and suits these strange creatures with their stealthy, noiseless footsteps and nocturnal habits.



MONKEY ISLAND

In 1935 the comedians, Olsen and Johnson, broke ground for Monkey Island, and there has been an always-amusing show in progress in this part of the zoo ever since. With its natural rock ledges and caves, its waterfalls and subterranean shelter, this moated island is one of the finest primate exhibits to be found in any zoological park.

Here, visitors to the zoo get a humorous, and sometimes exciting, closeup of a monkey community. As with man, any group of simians must always have a "boss," and life on the island is not without its social upheavals, a ruler often being deposed by his subjects in sudden revolt. At this writing, a large female Rhesus Monkey is the one who gives the orders. The island has both the Rhesus and Pig Tail Monkeys, and in addition, to add a note of variety, there are a few coati-mundis.



* * *

CAN YOU GUESS?



The monkey sits and searches
In another monkey's fur,
It doesn't seem to matter
Whether it's a "him," or "her."
He parts the hair and pounces,
Then takes a little bite.
Do you know what he is finding?
Is it dark meat—or light?

See Verse Answer No. 1, Page 99.

CARNIVORA

A stylized graphic where the word 'CARNIVORA' is written in a bold, sans-serif font. The letter 'C' is significantly larger and features a bear's head and paws. To the left of the 'C' is a seal, and to the right is another bear. Below the letters 'A', 'R', and 'N' are decorative, striped patterns resembling tiger stripes.

The Carnivora, or flesh-eaters, form a large order of mammals that are specially adapted for capturing other animals and devouring them. Their name doesn't mean that in all cases they eat flesh exclusively, but nevertheless it is a main item in their diet. The order includes the cats, hyenas, dogs, bears and seals, and Cleveland Zoological Park has many specimens of all these groups.

THE CATS



African Lioness

The cat family is widely distributed, being found everywhere in the world except in the polar regions and in the islands of Australasia and Madagascar.

As you go through the zoo, note carefully some of the peculiar



Bay Lynx

adaptations which have enabled these cat animals to survive. In bone and muscle they are "streamlined" for agility—for free, graceful motions. Their feet are padded with cushions so they can make a noiseless approach in stalking their prey. They have claws which can be retracted when they walk, and extended when they strike. Their canines are long and

curved, for tearing flesh from the bone. Their eyes are adapted for vision either by night or day. And, above all, their characteristics are grace and ferocity.

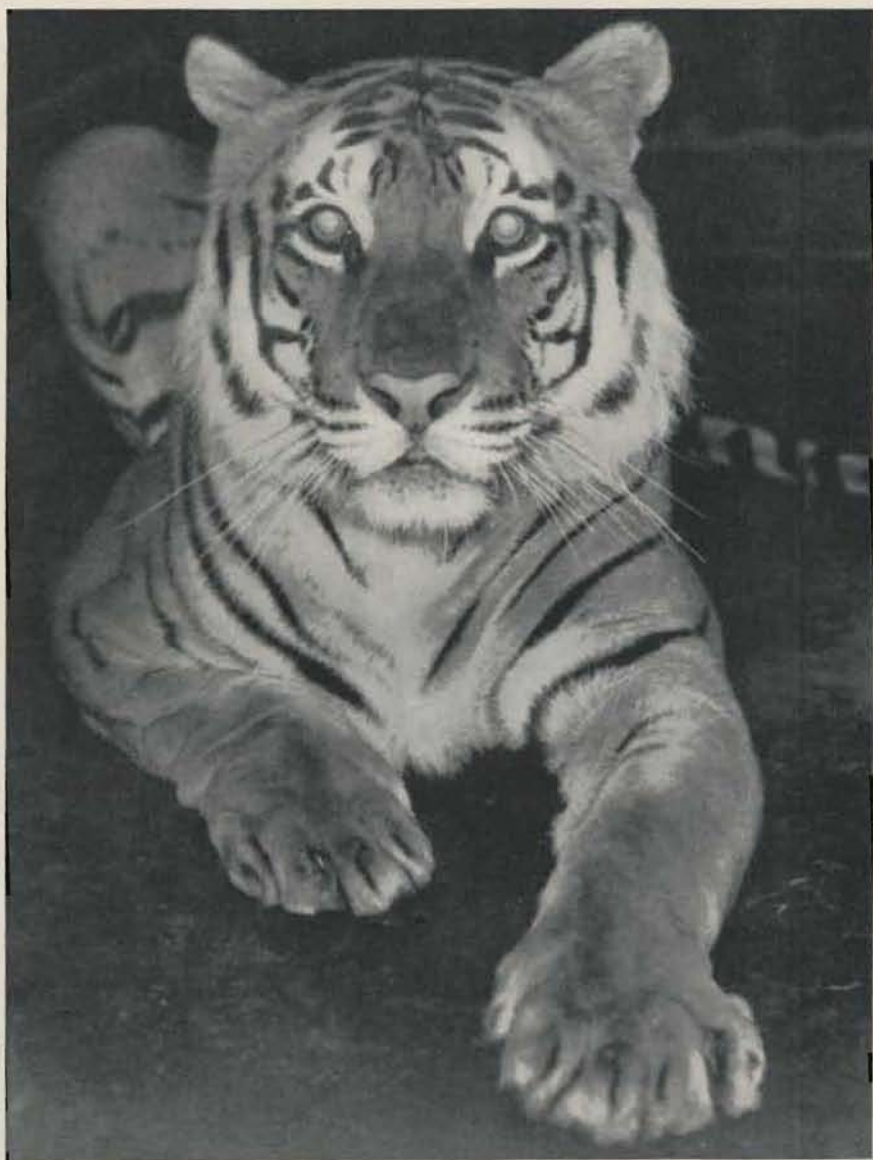
Bay Lynx is the mammal most commonly known in America as the wild cat, or bob-cat. It is found in both the United States and Canada. Its fur is of uniform bay color, and its short, bushy tail is a distinguishing feature. They feed chiefly on rodents, and small birds. It is their habit to utter a wild scream from time to time while hunting at night.

The Puma is known also as the mountain lion, panther, cougar, painter, catamount and American lion. Its habitat is the Americas, and it once ranged the greater part of the United States. Today, however, it is seldom found in North America outside the Florida Everglades and the western mountain regions. It is fairly abundant in the American tropics.

The Ocelot is one of the smaller cats (about four feet long), ranging from Texas to Central and South America. It is both spotted and striped.

The Jaguar, found in Central and South America, is the largest of the New World cats. Its spot patterns are similar to those of the leopard, the difference being that the leopard has just an ordinary spot, while the jaguar has rosettes. The jaguar, too, has a larger body and a much larger head. It is a dangerous animal; in some parts of the American tropics, man-eating jaguars have been known.

Tigers are noted for the beauty of their coat, a pattern of dark lines against a tawny-yellow background, which in the wild state makes them almost invisible in the light and shadow of the jungle. Contrary to a popular misconception, there are no tigers in Africa. The greatest number are in Asia, where the Royal Bengal is found, but the largest specimens are in eastern Siberia. Some, too, live on the island of Sumatra. Their ferocity is well known, and there have been many cases of man-eating tigers. In captivity, tigers are not as adaptable



What does a Royal Bengal Tiger think about as he sits and stares straight ahead? Those smouldering eyes change from amber to green while he waits patiently for a chance to get his mortal enemy—MAN. His method of attack is like the domestic cat—a stealthy approach and sudden rush. LOOK OUT!

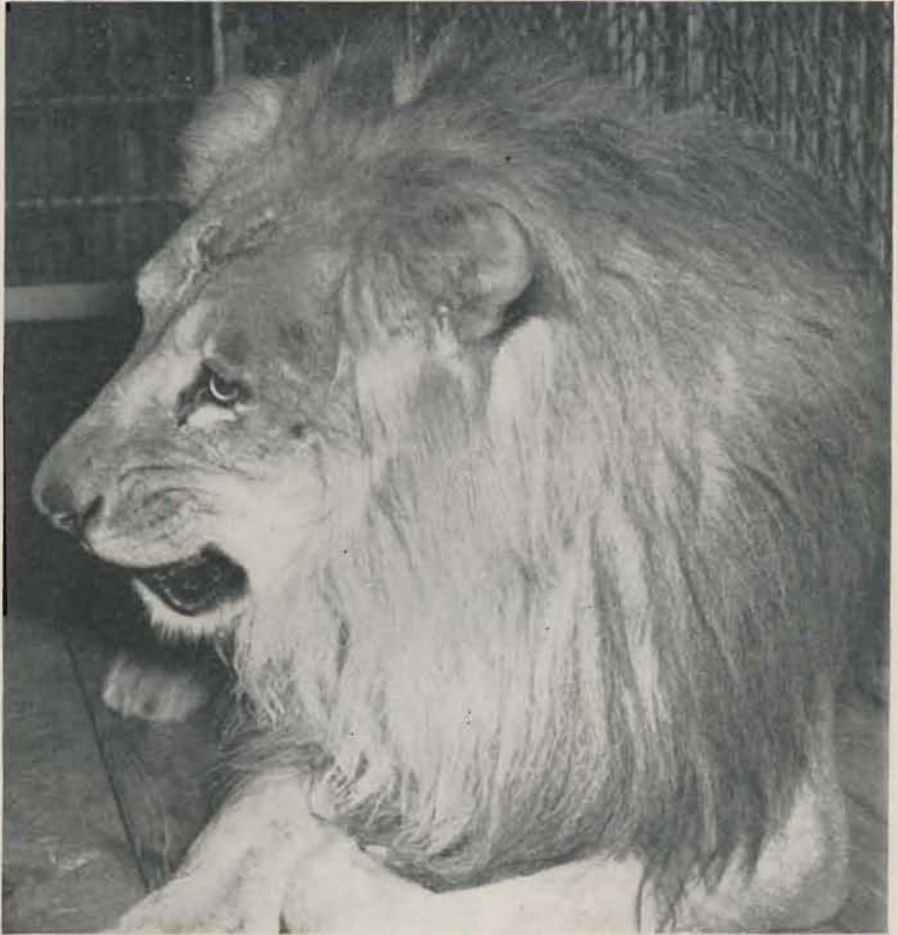
as their cousin, the lion. Tiger cubs are much more of a rarity. The specimens in Cleveland Zoological Park are Royal Bengals, one of which was born in the zoo.

The Leopards are the third largest of the Old World big cats. They are so agile they hunt from trees, and they are a particularly crafty animal. Their range includes practically all the territory in which the lion and tiger are found. The black leopard, known as the most ill-tempered of all the cats, is simply a black variety of the ordinary spotted form and is rather common in Malaysia. Black leopards may bear spotted cubs, and vice-versa.

Leopards eat small mammals such as wild pigs, baboons and the like, but they have an especial fondness for dogs. Hunters often use dogs for bait, staking them out in a lonely part of the forest while the hunter waits concealed nearby.

If you saw this Black Leopard in the right light, you would notice his spots, for he has them just as the ordinary leopard has. Animal men call this species "sports" or freaks of nature. However, many believe that a true species of Black Leopard is being developed. Perhaps it is nature's protective coloring again, for the Malayan jungles from which most of the Black Leopards come, are heavier and darker than the habitat of leopards in other parts of the world.





(Male African Lion)

"How's about a bone, chum?"

The Lion is found in both Africa and Asia. It easily adapts itself to captivity, and cubs are frequently born in the zoo. The young, of which there are from two to five in a litter, are spotted until they are eight or nine months old. Achieving maturity in about three years, a male lion will weigh as much as 400 pounds. His chief characteristic is his mane, giving him a majestic appearance that has gained him the title of "King of Beasts." This honor the lion hardly deserves; the tiger, for one, can often outfight him. The lioness is smaller and has no mane. As a rule the male and female mate for life, and they hunt together, attacking their prey with a swift bound. They are plains animals, hunting the antelope and zebra.



"Testing," says Silver the Polar Bear (above) as she puts one paw in to see if the water really was as cold as she thought. On the right is the Cinnamon Bear, begging handsomely for a hand-out.



THE BEARS

If a popularity contest were conducted in the zoo, the bears certainly would rate well up at the top, for most of them love to perform, and on Sunday afternoons in summer they draw large crowds to the bear dens. The bears form a distinct group of the carnivora, and there is no mistaking any member of this family. While cat animals are built for speed and agility, the bears are built for strength; they are massive, and their motions are deliberate. Their heavy fur is a striking characteristic. The presence of five toes on both the hind and the fore feet is also a distinguishing feature of the group. The claws, unlike those of the cat animals, cannot be retracted.

Bears eat more vegetable food than any other carnivores. In fact their diet is quite variable. In the wild, they will eat honey, roots, berries, and even insects, in addition to what meat they can obtain. As a rule they get along well in captivity and are very adaptable. In the zoo they do not hibernate in winter, although they are less active.

Cleveland Zoo has an unusually fine collection of bears.

Himalayan Black Bear is a denizen of the forest regions of the Himalayas. It is distinguished by the white, inverted V which is noticeable on its chest when it stands erect. This Himalayan species has large ears that make it look like an overgrown teddy bear.

Polar Bears have been well equipped by nature for survival in the Arctic regions. The soles of their feet are hairy, enabling them to gain a footing when climbing and running over the icebergs. In the water they are as much at home as on land; they are great swimmers

Note the "teddy bear" ears of our Himalayan Black Bear.



and divers, and in this respect they almost match the seals, which form a main item of a polar bear's diet. They swim only with their forelegs, their broad paws making perfect paddles.

The Kodiak Bear, one of the Alaskan brown bears, is a monstrous, imposing looking fellow, holding the distinction of being the largest meat-eating animal living on land. When full grown, a male will weigh as much as 1,800 pounds, or, by comparison, four times as much as a big, adult lion. Yet, when they are cubs, they are tiny balls of fur, so small that a man could easily hold one in the palm of his hand. As they grow up they become extremely dangerous, particularly when cornered, and they know only one enemy—man.

The Kodiaks are from Kodiak Island and the adjacent Alaskan mainland, where they live mainly on salmon. Their time of feasting is during the salmon runs from June to October, when they fatten up preparatory to the winter's hibernation.

American Black Bear is common to practically all wooded North America. It is more widely distributed than any species of bear. A born tree climber, it can scurry up a tree almost as soon as it can walk. In fact the first thing a mother black bear does when she senses danger is to send the young ones a-climbing.

They mate before hibernating. Cubs number one to four in a litter. At birth they are tiny and almost naked, weighing from eight to 18 ounces. When full grown they weigh as much as 400 pounds.

The Cinnamon Bear is simply a color phase of the Black Bear, and is not, scientifically, a distinct species. The Black Bear has many color shades, and sometimes brown and black cubs are found in the same litter.

Grizzly Bears are known to all of us—at least on the printed pages of fiction—for writers of western stories long have dramatized them as the embodiment of all that is ferocious in big game animals. The grizzly as a rule is not as aggressive a mammal as some of the tall stories would have you believe, although he is very dangerous when brought to bay. It is his massive bulk that has made him a prize catch for the hunters—first, for the Indians, and later for white man's big game hunters. And as a consequence grizzlies today are rarely found outside the Yellowstone, where the government protects them on reservations. An adult male will weigh as much as 800 pounds.

Malayan Sun Bears are the smallest bears of the world. They inhabit the dense forests of Sumatra, Java and Borneo, where they are almost entirely vegetable feeders. The sun bear has a sleek coat of fine, glossy fur—deep black except for a yellowish white patch on the chest. Their extremely long claws are another characteristic. Although





"You know me by my spots," says the Hyena.

playful looking in captivity, they are dangerous and not to be trusted.

The Brown Bear is found in the mountainous regions of Europe, and its range extends into Asia as far as the Himalayas. It once lived in the British Isles, where bear-baiting was an old-time British sport, the bear being tied to a pole and worried by dogs. The brown bear is a good climber and digger, and it is one of the familiar performing bears.

THE HYENAS

These African animals with their loathsome eating habits and cowardly characteristics are offensive. Still, in the thinly populated country from which they come, they have a definite usefulness. They act as scavengers, clearing away decaying carcasses that would otherwise pollute the air, and their massive jaws and specially constructed teeth do the work thoroughly and well. Of course they don't always restrict themselves to the carrion they find; they destroy sheep and cattle, and have even been known to take human life.

The Striped Hyena is found in Northern Africa and India. It is a dirty gray in color, and the front part of its body is more developed than the hind part, which accounts for its peculiar slinking gait. This creature

is solitary and nocturnal in habit and it never fights unless cornered.

The Spotted Hyena is found further south in Africa and is sometimes called the "Laughing Hyena," because of the hysterical sounds it utters. The Spotted variety hunts in packs and is apt to be more dangerous than its northern brother. There also is a Brown Hyena in Southern Africa.

THE DOG TRIBE

The wild members of the dog tribe hunt in packs, and although individually small, collectively they are as dangerous as the larger animals. Since their claws are fixed, and are therefore not much use in a fight, they always attack with their teeth. Their sense of sight, smell and hearing are highly developed and this fact is the primary factor in their survival.

The Dingo is known as the only true wild dog, and comes from Australia. It is wolfish and treacherous by nature and is not easy to domesticate. The Australian farmer has no love of the Dingo, for it is an avid sheep killer and hunts the sheep in packs, doing a great deal of damage. Although weighing only about 60 pounds it is outstandingly courageous, and will endure the most painful ordeals without flinching.



Dingos—the only true wild dog

The Alaskan "Huskie" is an Eskimo dog of an unstandardized breed, since the wolf strain and the blood of the white man's dogs have been introduced. These self-reliant creatures with their massive heads and deeply furred necks, have a waterproof coat and well-furred feet which protect them from the penetrating cold of the Arctic weather. The Eskimos use them for pulling sleds, and their solid bodies and straight legs are made for the job. They are also used for hunting polar bear, which they find and hold at bay until the hunters arrive.

The Coyote or Prairie Wolf is noted chiefly for the weird barking sound it emits. It seems to be much enamoured of its own voice and loves to give long concerts in the moonlight. It is found in the northern Mississippi valley westward to the Rockies, and while it does not attack man, it hits the farmer by destroying his poultry and sheep. It does repay him in some degree, however, by destroying insects, such

as grasshoppers, beetles, crickets, etc., and also eliminates large numbers of rabbits. The coyote is not particular about his diet and will usually eat anything he can find, dead or alive. He mates in February and has from five to seven cubs in April.

The Gray Wolf, or Timber Wolf, is found in the Great Plains region. When Bison were numerous they followed the herds in order to prey upon the young and feeble. Their hunting habits depend upon circumstances, for they hunt alone, in pairs or in packs, and seem to kill for the love of it. Farmers in the vicinity whose sheep are not adequately protected, often lose fifteen or more in a night, and find the animals with their throats cut but otherwise unmolested. The Gray Wolf mates for life and the females make devoted mothers, never harming their young, and guarding them well. Their litter usually contains about seven pups.

The Red Fox is known for its resourcefulness and cunning and because of these characteristics fox hunting has become one of the most exciting sports. This fox is found in North America from the Atlantic to the Pacific, and when in prime condition can far out-do any pack. Speed is their greatest weapon, and they have been known to run at the rate of thirty miles per hour. Their large, bushy tail as well as being very beautiful, acts as a blanket in winter, and they sleep with it curled up around them. While Red Foxes do rob the farmers of some poultry, they also eat many destructive rabbits.

The Gray Fox or Tree Fox is very different from its cousin, the Red Fox. Red Foxes seldom climb trees, but when pursued usually hole in the ground. They also bring forth their young in a den in the earth, and their litters are larger. The Gray Fox when pursued climbs a tree to escape and is therefore much more easily taken. It also climbs for food, and has its young in hollow logs or under rocks. This creature is found from New York state to Georgia, west to the Mississippi valley and north to Illinois.

* * *

ESKIMO COW

In the land of ice and snow
Lives the trusty Eskimo.
When he wants some milk to drink
Where does he get it, do you think?

(See Verse Answer No. 2 Page 99)

MISCELLANEOUS MEAT EATERS

The Raccoon is one of several small carnivores in the Cleveland Zoo collection. Found in North and Central American woodlands, the raccoon is nocturnal in habit. In the wild state it travels in companies and although not arboreal, trees do form its nesting place and refuge when being pursued. The raccoon is often called "little brother of the bear," due to its resemblance in build and the fact that it hibernates during the severest winter weather. One of its most interesting characteristics is its habit of washing all food before eating.

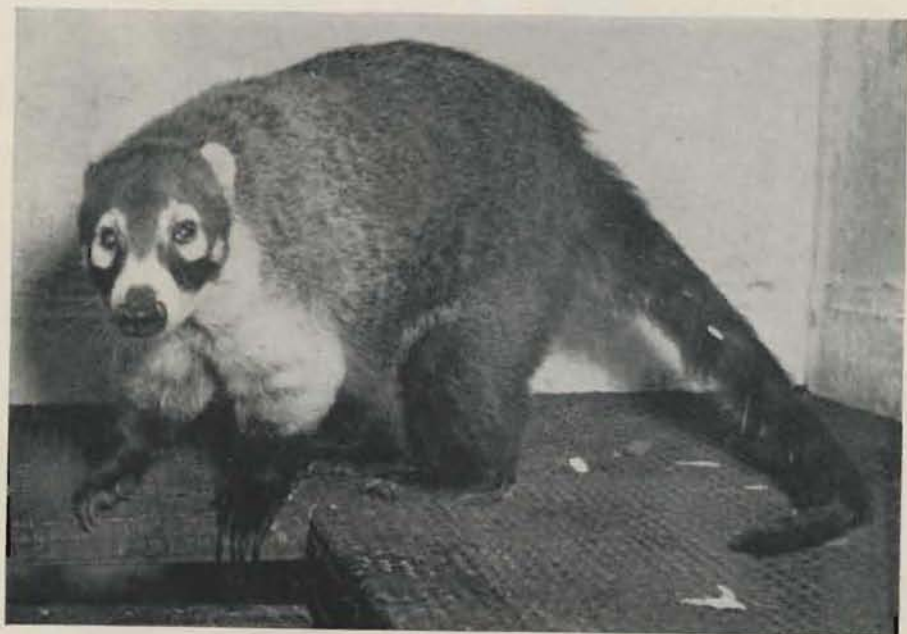
The Coati-Mundi belongs to the raccoon family, and the ringed tail immediately gives you the clue. Its tail, like that of the kinkajou, is prehensile, and the coati-mundi is an expert climber. Its agility in the trees and the silent, almost ghost-like manner in which it flits about are its greatest protection. This bright-eyed creature is native to Mexico and South America.

The Kinkajou, or "honey bear," is often sold for a pet, since it is easily trained and can be very amusing. In the wild state, however, it is very fierce. Two things about the Kinkajou have aided greatly in its survival. One is the long, flexible tongue with which it searches out insects, honey, fruit, etc., and the other is the prehensile tail with which it holds on tightly to trees and branches. It is extremely active and is nocturnal in habit. One human-like trait is the creature's manner of holding food in one hand and breaking it up with the other. It comes from Mexico and South America.

The Skunk, commonly called "wood pussy," or "pole cat," is one of the most beautiful of all animals. Although quite small, it is entirely fearless, for it has every confidence in its not-so-secret weapon. The powerful fluid it discharges is not only extremely disagreeable, but burns like fire, and in some cases has been known to cause blindness.

This essence is from a gland on each side of the base of the tail, and the animal arches the tail high when ready to discharge it, thus escaping contamination. There is one way to render a skunk harmless, and that is to pick it up quickly by the tail and hold it off the ground. This is nervous work, however, and is rarely successful except with the young. The skunk lives in caves or hollow logs, and eats insects as well as robbing the farmer of his poultry.

The Civet is found in Africa and Southeast Asia. It is valued chiefly for a thick substance it carries, from which perfume is made. This is found in a pouch close to the animal's tail, and the civets are often confined in small cages and deprived of this secretion periodically. Quick and active in their movements, the civets prey upon birds, frogs and poultry. They are nocturnal and arboreal. At Cleveland Zoo we have two species, the African and the Asiatic Palm Civet.



There is no denying that these two fellows are closely related. The one above is the Coati-Mundi. Note what a long tail he has. He can use it for holding on to tree branches as he climbs. Although the Raccoon, below, is a member of the same family, he does not have this prehensile tail.





SEA LIONS

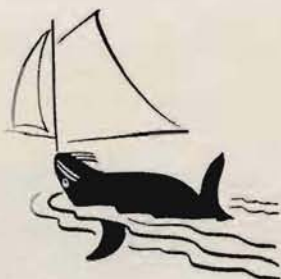
Every visitor to Cleveland Zoo is attracted to our beautiful Sea Lion pool. Indeed you could scarcely escape it, for the Sea Lion is a boisterous character, and his loud barking call can be heard above the surrounding animal sounds. Sea Lions are the Carnivora of the sea—or fin-footed carnivores, and they are found in the Pacific Ocean from the Bering Strait to California and Japan. Zoo visitors usually speak of them as "seals," and that is their family name, for Sea Lions are eared seals as distinguished from true seals. One characteristic of Sea Lions is that they can propel themselves on land and can go quite a distance in their own clumsy fashion. This is because their

flippers are turned forwards under their body. In the case of the true seal the hind flippers are directed backwards.

The Sea Lion is an intelligent creature, and it is this species that you see performing in circuses and vaudeville. In the wild state they live in large, noisy family parties, which are always dominated by the largest bull, or male. They live on fish, which they swallow whole, and they also consider sea gulls a choice delicacy. In fact they have a special booby trap for unwary gulls. They submerge themselves, leaving only the tip of their nose out of water; then, when a gull settles down near them to rest, it's good-bye gull. While the short, coarse fur of the Sea Lion has no commercial value, these mammals are hunted for their hides and oil. Were it not for restrictions, they would soon become extinct, for they are singularly defenseless.

There is a difference of opinion among scientists as to how the seals and sea lions should be classified. Many classify them as we have done here, as a part of the carnivora. Others refer them to a separate classification.

* * *



"My land," said the Sea Lion cruising about.
"I wouldn't be a seal for all get out.
It's true that your relatives you can't pick,
And seals and Sea Lions just don't click."

RODENTS

The rodents, or gnawing animals, are found all over the world and comprise almost a third of the mammals. They are small but extremely prolific and in some regions exist in tremendous numbers. Farmers find them a terrible nuisance, for they live on vegetable food and are very hard on growing crops. Their commonest characteristic is their teeth, which are broad, chisel-like incisors, especially adapted to gnawing. Nature has provided a pulpy substance within the animal which nourishes its teeth. Otherwise they would wear away, they are subjected to such hard usage. Rodents generally are quick and alert, and their bright eyes and well developed ears are a great factor in preserving them from their enemies.

Porcupine means "spiked pig," and the expression describes very well this nocturnal creature whose quills are terrifying to all animals. Many people still believe that a porcupine shoots its quills, but this is not true. The quills are actually modified hairs with barbed ends which are so loosely attached to the skin they adhere to anyone coming in contact with them. Leopards and tigers have been known to die after a bout with a porcupine, for the quills burrow deep into their jaws and mouth and prevent them from getting food. Porcupines live in burrows and come out in the evening in search of roots, bark and fruit. We have two species at Cleveland Zoo, the Asiatic and the American.



One of nature's best protected animals is the porcupine. This is an Asiatic Porcupine.



Front Face! Hey, you, get back in line.

(Nutria)

Coypu, or Nutria, are native to South America and are much sought after for their valuable fur. The coypu in general resembles the beaver although their tails are like the common rat. They are aquatic in habit and spend a lot of their time playing and swimming around in the water. Like other rodents they are fond of grain, and an ear of corn to them is like strawberry short-cake to you.

Guinea Pigs come from South America and are considered good pets for children, for they are clean and never bite those who are caring for them. A favorite joke of animal lovers is to tell the uninitiated that if they pick a guinea pig up by the tail its eyes will fall out. Of course the creatures have no tail at all. They are especially noted for their fertility, since they begin to breed when ten months old and can have young every couple of months. A litter usually consists of two to four.

Rabbits are docile creatures whose best chance of survival comes from their alertness and speed. They are appealing pets and children love them. Commercially they are used for food and their skins are used in making clothing.

The Squirrels are such friendly creatures they might easily become pests if unrestricted. Bird lovers call one strike against them because they rob the nests, but they are frisky and their bushy tails and soft fur make them attractive to watch. At Cleveland Zoological Park we have three varieties—the Mexican black, the gray and the fox squirrel. They do not hibernate but scamper around all winter, seeming to enjoy the snow and cold. Of the three kinds mentioned, the fox squirrel is the largest and laziest and also the most hardy. The gray is more nimble and is a hard worker and early riser. In fact the gray squirrel is up feasting before the birds. Squirrels make devoted parents and the mother carries her babies by the scruff of the neck

just as cats carry their little ones. Squirrels do not hoard food like chipmunks do, but they bury nuts when they have a surplus, and have a remarkable way of being able to dig them up again when the occasion arises.

The Woodchuck is the woodland weather prophet, for his other name is the groundhog, and whether or not he sees his shadow is a matter of great concern. He is honored by being the only animal who has a place on the calendar, (Groundhog Day—February 2nd). The superstition is that on this day, after his long hibernation, he comes out of his den to take a look at the weather. If the sun is shining and he sees his shadow, back he goes into the den, and we're in for six more weeks of winter. In habit, he is a lazy creature whose only exercise is in outdistancing the farmyard dog. His main talents lie in the way he plans his den, for though not as good an engineer as the beaver, he pays special attention to drainage and builds in many escape tunnels to help him outwit his enemies, the fox, mink and skunk.

Prairie Dogs who are members of the squirrel family, are very familiar animals to those who have visited the western plains. They are about fourteen inches long and are quite socially minded, living in large colonies. They live on and just under the surface of the ground, and one amusing trait is their habit of sitting upright on their "door-step" uttering a sort of bark in defiance to any approaching danger. They eat quantities of alfalfa and hay and destroy farm crops from cabbages to cantaloupe, so they're not popular with the farmer. Their enemies are the coyote, badger, ferret and rattlesnake.

The Golden Hamster is well known in many parts of Northern Europe and although less than a foot in length, it is every inch a fighter. Anything that threatens it, regardless of size, is fought with unreasoning desperation. The creatures fight constantly among themselves and even mates battle until one or the other is killed. The burrow of the hamster is a complicated series of passages which it uses as store rooms for stolen grain. The animal fills its cheek pouches with grain and works diligently so that it is not unusual for it to get away with as much as sixty pounds of corn. After harvest time, the farmers dig up the hamster burrows to recover their stolen food.

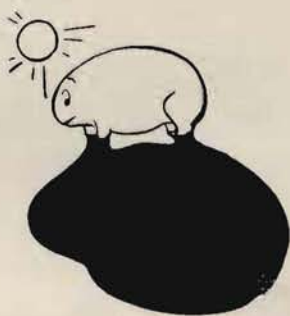
* * *

A lady porcupine, though fair,
Can never, never comb her hair.
Her quills and hair are just the
same.
She's really quite a stuck-up dame.



SPRING BRINGER

The woodchuck weather prophet
Brings spring on ground-hog day,
If he doesn't see his shadow.
At least, that's what they say.



STRIPED TEASER

Here's a poser, here's a fright
Is a Zebra black or white?
Is it white with stripes of black?
What's the color of its back?

(See Verse Answer No. 3 on Page 99)



Sophisticates of the animal world, the Zebras' coats each have their own pattern.
No two are ever exactly alike. This is the Chapman's Zebra.

HOOFED ANIMALS

A stylized illustration integrated into the title. The letter 'H' is large and blocky. A deer is positioned behind the 'H'. A person is riding a horse, with the horse's body forming the 'O' of 'HOOFED'. A camel is positioned behind the 'ED' and the word 'ANIMALS'.

Down through the ages, man has come to depend more closely on the hoofed animals than on any other order, for in this group are just about all the domesticated animals on which we depend for food, as well as our beasts of burden. The order is known as the ungulates, a term which is from the Latin word, *ungula*, meaning a nail, claw or hoof. Its members include the sheep, swine, goats, oxen, antelope, deer, camels and horses—and these, in the terms of our civilization, mean wool for clothing; milk, beef, lamb and pork for food; leather for countless products; camels for desert transportation, horses for riding the ranges, working the farmlands, pulling the carts and wagons that have built our modern empires.

The group is so large we consider it under two main headings—the odd-toed and the even-toed ungulates. The odd-toed include not only the rhinoceros, which has three toes on each foot, but the horse, whose hoofs are really single toes specialized for running.

THE ODD-TOED

Zebras are members of the horse family. Nature has arrayed them in black stripes on a creamy white background, a pattern that from a distance serves as a natural camouflage. No two of these patterns, incidentally, are exactly the same. In Africa, their only habitat, they roam the plains in herds, often keeping company with such antelopes as the wildebeest and the gazelles. Like most of the ungulates, they are vegetable feeders. Many attempts have been made to domesticate them, without any great success. Zebras are obstinate creatures, and are mean fighters when aroused, using both the hind and fore legs, as well as their teeth, as weapons. There are several types of zebras. Those in the Cleveland Zoological Park are the Chapman's zebra.

Tapirs once had a world-wide distribution, but today they are found only in Malay and in South and Central America. They are massively built animals, with short, stout legs, and an elongated muzzle that looks like the beginning of a trunk. Natives call the Malayan tapir the "kuda ayer," which means "river horse." They are very good swimmers. When the young are born they are covered with stripes, looking not at all like the parent as far as color scheme is concerned. These baby stripes give the young an extra measure of protective coloration and aid in their survival.



This Yak thinks his tail is of much more value to him as a fly swatter than to the people of India, who would use it for the same purpose.

EVEN-TOED

One of the oddest adaptations in the animal world is the provision made in some mammals for swallowing food and storing it in a special receptacle in the stomach, from which it can be returned to the mouth and chewed at leisure. We call these mammals ruminants, or cud-chewers, and we are most familiar with them in our ordinary barnyard cows, goats and sheep.

The ruminants make up the largest number of even-toed hoofed animals, although there are also non-ruminants (like the peccaries and hippopotami) in the group.

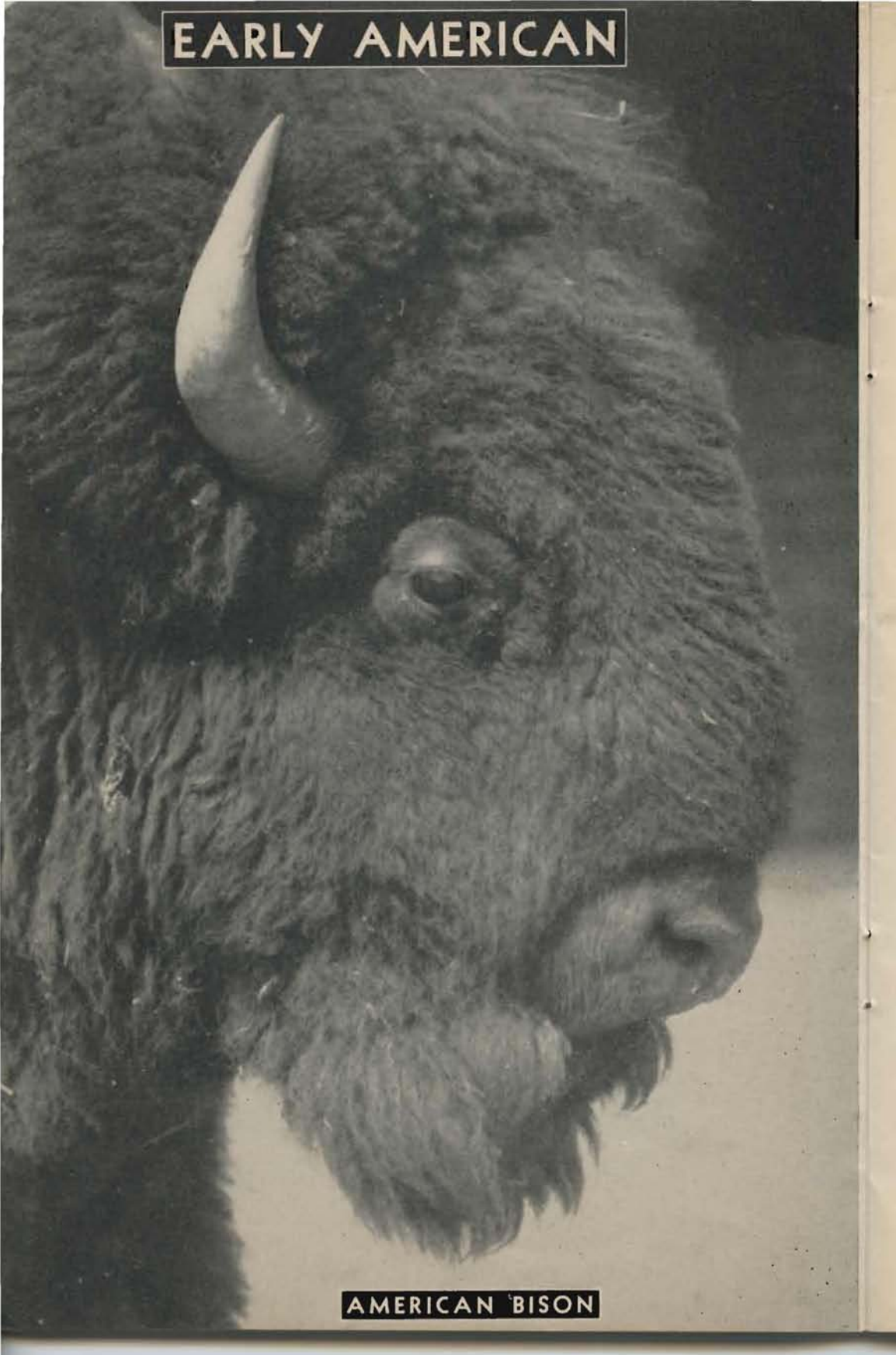
Hollow-Horned Ruminants: Many of the cud-chewers have horns which grow from bony lumps in the forehead. These horns are hollow at the base. They persist through adult life and are never shed. Members of the family in the Cleveland Zoological Park collection include the oxen (zebu, yak, bison and Indian water buffalo), the sheep, tahr and antelopes.

Indian Water Buffalo: The horns of this animal are characteristic of the buffaloes; they are flattened at the base in such a fashion they can serve as battering rams. In India and Ceylon, these animals (also called the Arnee) are both wild and domesticated, and in the wild state they often are very ferocious. They are such powerful fighters that native Hindoo princes pit them against tigers, and the fast charging



"I'm tougher than you are!" says the Indian Water Buffalo belligerently.

EARLY AMERICAN



AMERICAN BISON

buffaloes, with their long, curving horns, are frequently more than a match for the tigers. In the wild, these buffaloes prefer wet, marshy localities.

The Yak is domesticated and also is found running wild in Tibet and China, where its long, silky hair (usually black) protects it from a rigorous climate. It is sometimes called the Grunting Ox, because its voice is only a grunt. The tail of the Yak is much in demand. The Chinese dye Yak tails red and use them as decorations. In some parts of the Orient the tails are used for religious signs in ceremonies, and in India they are mounted in silver handles and employed as fly swatters.

American Bison are found today only on reservations or in captivity, so they no longer can be considered truly wild. Once they roamed the western plains in such vast numbers that as recently as 1871 the scientist Lydekker estimated a single herd on the Arkansas river as numbering 4,000,000. With its massive frame, and its shaggy coat, the bison was ideally suited to its environment. But, slaughtered by hunters and overrun by the tide of westward expansion, this wild oxen nearly became extinct. Enough of them were saved, however, to reestablish some herds on Government reservations, where they now prosper under man's protection. Although frequently called the Buffalo, the American bison is not a true Buffalo.

The Zebu, characterized by a hump behind the neck and its light color, is a native of India and adjacent countries, where it is a common beast of burden. Zebus are powerful and generally are of good disposition, making ideal draught animals. In the Orient they till the fields and, although very slow, they also are used as pack animals and for riding. Some of the white bulls, called the Brahmans, are considered sacred by the Hindus and are allowed to roam practically at will.

Wild Sheep belong to still another family of even-toed ungulates. All sheep are horned, although the horns of the male are larger than those of the female. The coat of the wild species has short hair, with only a slight layer of wool underneath. In the domesticated sheep, this hair disappears (through care and selection in breeding), and the wool becomes a thick fleece.

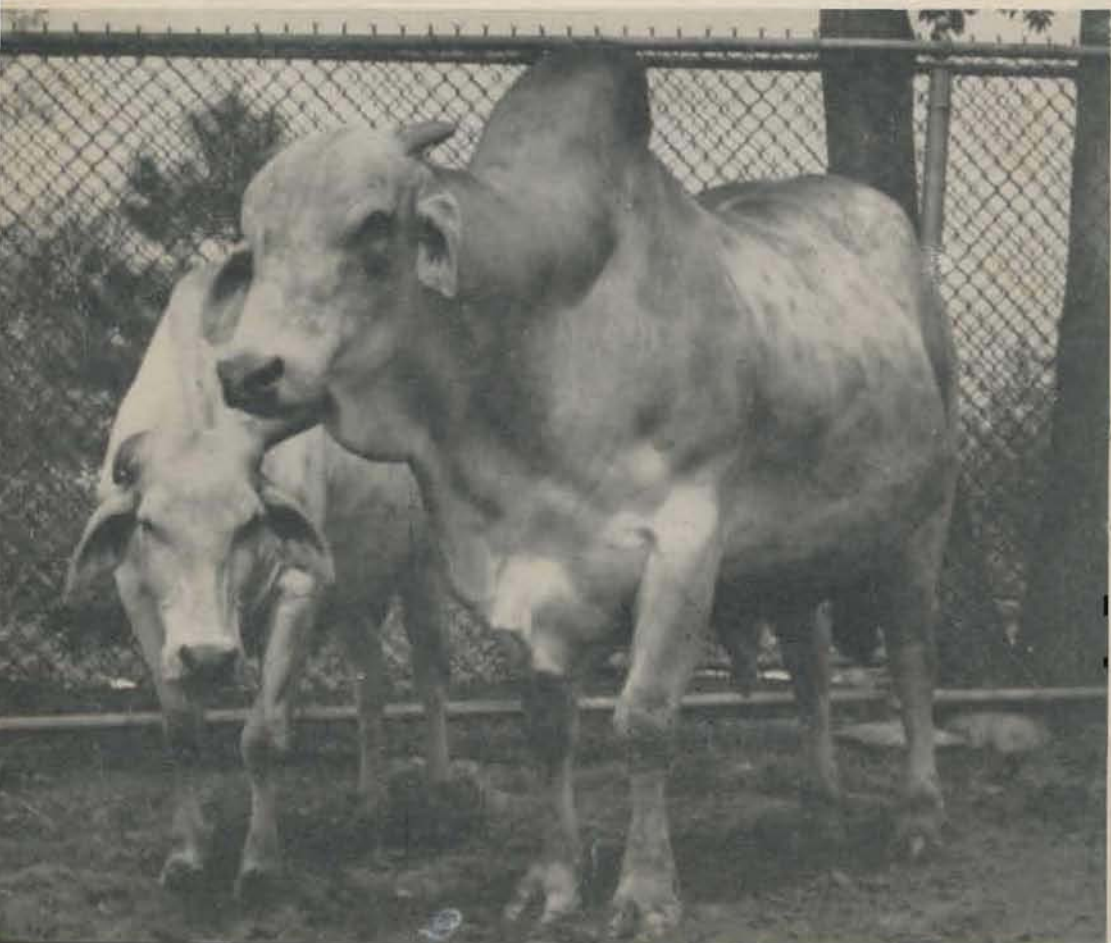
In the Zoo there are several of these wild sheep. The Mouflon, a heavily-horned species from Corsica and Sardinia, is reputed to be the ancestor of our domesticated sheep. The Aoudad, or Barberry wild sheep, is the only wild sheep of Africa. It is native to the northern part of Africa, where it lives in greatly diminished numbers in the arid slopes of the Atlas mountains. Two other European wild sheep in the collection are the fat-tailed and the black-bellied sheep.

The Tahr belongs to the goat tribe, which is a family distinct from that of the sheep. This fleet, agile, shaggy-maned fellow frequents the forested regions of the Himalayas. It is beardless.

The Antelopes, too, are horned ruminants. They comprise a large family, numbering about 100 species in all. This group provides a particularly interesting example of how physical characteristics are developed to allow certain animals to survive in nature's struggle for existence. Speed is the antelope's chief defense against enemies, and for this he has been equipped with a light body and slender limbs, supplemented by unusually keen senses of sight, hearing and smell. With their fleet-footedness and their long, erect horns, they are among the most graceful creatures in the animal kingdom. Just about all the antelopes are found in Africa, where they live on the plains.

The Eland, the largest of the true antelopes, is found in sparsely settled districts of South and East Africa, where it travels in herds often numbering between 50 and 100. An imposing looking animal, the bull eland will stand six feet at the withers and weigh around 1,200 pounds. It differs from cattle in having horns spirally twisted, like a

In India when a Zebu is born, the sacred mark of Sina (one of the Hindu trinity) is put on his body. From then on he goes his own way, eating fruit from stores, taking what he pleases, napping safely in the streets—a placid tyrant.



gimlet. In Africa it is considered good eating, except in the dry season. Elands in captivity are generally docile and are good breeders.

The Wildebeest, or Gnu, is an antelope of such fantastic appearance that it once was exhibited in American circuses, carnivals and side shows as "the horned horse." In fact the animal looks like a strange combination of horse, bull and antelope. It has a heavy mane, and long, shaggy hair from the chin to the forelegs; this, together with a pair of horns that curve downward and then upward, gives the animal a ferocious look that helps account for the name, wildebeest. The name also is derived from the fact that in the wild the bulls often will prance about and pursue each other in circles when approached by hunters, finally drawing together as a herd and galloping off. It usually is found in the company of the zebra and hartebeest.

The wildebeest is a treacherous animal, and is capable of a fast, lightning-like charge that can come so unexpectedly its keepers in the zoo have to be extremely cautious. There are two species—the blue wildebeest, or brindled gnu, from East Africa, and the black wildebeest or white-tailed gnu, which is now almost extinct.

The Black-Buck, or Indian antelope, comes from central and north-western India. It is so named because in the mating season the male has a black coat. One of the smaller antelopes, the black-buck stands about two and a half feet high.

Ruminants with Antlers are members of the deer family, and here should be noted the fundamental difference between antlers and horns, the two being frequently confused.

Antlers differ from true horns, which are hollow at the base, by being solid bone. Horns, too, are permanent during their wearer's adult life, while antlers are shed periodically and a new pair grown in their place. In this latitude antlers are shed in the spring and grown in the summer. They grow from a bony pedicle, or stalk, and in their early stages, while being nourished by blood vessels, they are covered with a soft skin which is known as the "velvet." But when the antlers have become full sized the blood supply is cut off, and the velvet dies and peels off in strips. The antlers then are clean, and hard, and their rough grooves are the channels where the blood vessels formerly passed. No sooner are they shed than buds of a new set appear.

Antlers, of course, are a means of protection against enemies and have a great deal to do with the survival of members of the deer family. They are employed, too, when the bucks fight in the mating season. They are possessed by adult males in all but a few species. Like most other hoofed animals, the members of this group also are protected by a keen sense of hearing, sight and smell, and the majority are very fleet of foot. They are mainly woodland animals.

Virginia White Tail Deer is the best known and most widely distributed game animal in America, being found in the middle and eastern United States and Canada. Under the protection of game laws, their numbers have increased in recent years in this vicinity, and in New

England and New York state in particular. "White-tails," as they are known, today even find their way into the outskirts of metropolitan Cleveland. They are very graceful in motion, running with their head and tail erect. Only the bucks have antlers. The mating season is in October and November, the fawns being born in May or June. A doe generally has one fawn each year. They get along extremely well in captivity.

The Fallow Deer is the type especially familiar in England, where herds of them are kept in the parks. Here at Cleveland Zoological Park



On the alert!

(Fallow Deer)

the species we exhibit is the White Fallow. In summer this creature wears a white-spotted, fawn-colored coat, which he changes in winter to one of drab gray. His fully developed antlers vary in length from 18 to 28 inches and he reaches maturity when he is six years old.

The Wapiti, or American Elk as it is sometimes called, is considered by many to be "the king" of the deer family. With the exception of the moose, it is the largest of the American deer tribe, and it is a truly majestic animal. The male has massive antlers, characteristically carries its head high, and when full grown will weigh as much as 1,000 pounds. Once the Wapiti was found from the Atlantic coast to the



HORNS like those worn by the Mouflon, above, are permanent.



ANTLERS, such as those of the Wapiti, at right, are shed annually and a new pair grown in their place.

Rocky Mountains, but now it is abundant only in Yellowstone Park, where it is protected. It suffered about the same fate as the Bison, for it, too, at one time roamed the plains in great herds and was an easy target for the hunters, who slaughtered the animal by the thousands.

When its new, tender antlers are growing it is usually docile, but once the antlers become hard the Wapiti is a sullen, dangerous animal. During mating season it is known for its loud, bugle-like call. The fawns born to the cow number one, two, or occasionally three.

European Red Deer is closely related to the Wapiti. Indeed, the Wapiti is the American red deer.

In England the red deer, or Stag, as it is commonly known, was once the favorite animal of the chase; a Stag hunt was considered the



"You give me a pain
in my hump," says the
ill-tempered Drome-
dary Camel.



greatest of sports. But it was finally put under such strict protection that at one time it was a capital offense in England to kill a Stag. This member of the deer family is reddish brown in summer, its coat turning gray in winter.

Hornless Ruminants: The animals classified in this manner are members of the camel family. Four of these cud chewers come from South America—the llama, alpaca, vicuna and guanaco—and the heads of the family, the Arabian and Bactrian camels, come from Africa and Asia respectively. While the other hoofed animals have a stomach separated into four parts, a binding characteristic of the members of this group is a stomach of three divisions.

The Arabian Camel or "Dromedary," has enabled man to penetrate some of the most inhospitable regions in the world. Explorers agree that without this tireless, plodding beast, many parts of the globe would have remained completely unknown until the advent of aviation. Nature has equipped the camel with "sand shoes"—soft, wide cushions that make walking on hot, slippery sand an easy task. And to prevent its skin from cracking when it kneels to load and unload heavy burdens, it has callous pads on its knees. Its heavily lidded eyes are a protection against sand storms, as are its nostrils, which it can close at will.

The Arabian camel is the one-humped species, and the hump is its food reserve. If the beast is on a long journey it can absorb food from the hump to sustain it. As this food supply is used up, the hump changes from the firm flesh of a healthy animal and becomes limp, but a rest and good food will soon restore it to its proper condition. One of the most remarkable things about this "ship of the desert" is its ability to go for a long period without water. An experienced and conditioned camel can go from 6 to 9 days without a drink, but it requires training in order to do this. In preparation for a long journey, the camel's owner will begin watering it at ever-increasing intervals. Then, at the time of departure, it is given water containing a quantity of salt. This causes the animal to drink a great amount.

Nature's provision for this necessary storage space is a series of 30 or 40 rubber-like cells on the lower side of the animal's intestine. Shaped like a tobacco pouch, one cell can hold about three gallons of water. Of course when they are all filled, each holds far less than this amount.

Besides being used for riding, and a most uncomfortable steed they are, and for beasts of burden, the camel provides milk and butter and its hair is used in the manufacture of cloth. In disposition it is morose, stubborn, vicious and not overly bright, but it has had an important part in building our civilization.

The Bactrian Camel has two humps and is taller and heavier in build than its African relative, but it cannot go without water as long, and does not have the endurance of the other species. Its legs are shorter and hair longer than the Arabian, but in other respects they are alike.

The Llamas are the only hoofed animals native to South America, and are often called the South American camel. There are three members of this group—the true llama, the guanaco and the vicuna. The latter two are a wild species and the first a domesticated animal. Although members of the camel family, these creatures are not meant for desert life. They have no hump, and their thick, fleecy coats and narrow feet fit them for the cold climate of the Andes, where they live. Like the camel, they are built to store water. The Incas were the ones who domesticated the llama, just as the Arabs and Tartars domesticated camels. They kept herds of them and trained them for riding and carrying burdens as well as using them for their wool and flesh.

The True Llama is from three to four feet in height and usually has a brown or black coat. They can carry a load of about 100 pounds, but if it isn't to their liking, they simply lie down and refuse to budge until the burden is lightened. They have a vicious disposition and a most unpleasant habit of spitting on whoever has incurred their displeasure.

The Guanaco is the llama as it was before it became domesticated. It is found in herds in the Andes, as well as on the plains of the Argentine and Patagonia. This cautious creature is very difficult to approach, and natives who hunt it for its flesh must be most skillful. It is quite fearless in the water and is often seen swimming long distances. Some scientists report that in Patagonia there is a guanaco graveyard, a place where the ground is white with the accumulated skeletons of the animals who have come there to die. The theory is that the animal, when it is sick, travels to this place instinctively so that its bones may mingle with that of other members of the herds of years gone by.

The Vicuna is the other wild species of llama. It is the smallest of the group and is found in the higher altitudes of the Andes. This graceful, deer-like creature is seldom captured alive, although it is avidly hunted for its soft, silky coat and its edibility.

The Alpaca, though a member of the camel family, is not a llama. It is a tame, domesticated animal reared for its exquisite wool which is so long it sometimes reaches the ground.



COMING SOON

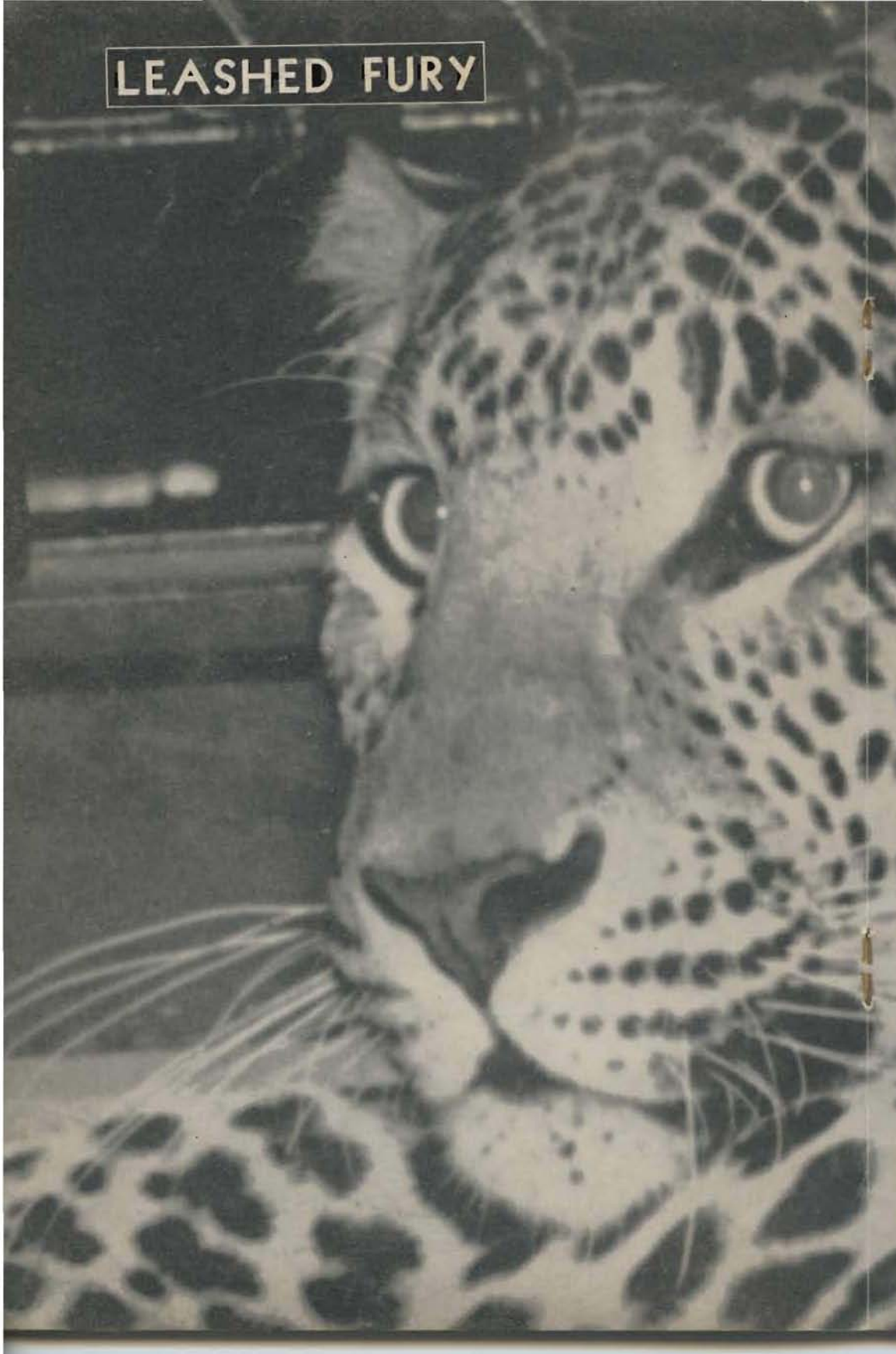
Three of the most spectacular of the hoofed animals are not represented in Cleveland Zoological Park as this Guide Book goes to press. However, it is expected that as conditions for obtaining these animals improve, we will soon be exhibiting them.

The silent giraffe, with its ungainly legs and great height; the clumsy, pre-historic looking rhinoceros, and the enormous hippopotamus are essential to an important collection, and we expect to obtain them in the not too distant future.

"Smile!" said the photographer and the Guanaco gave it everything she had. Below is a family group. Father and Aunt Min were too busy eating. But Mother really struck an attitude.



LEASHED FURY



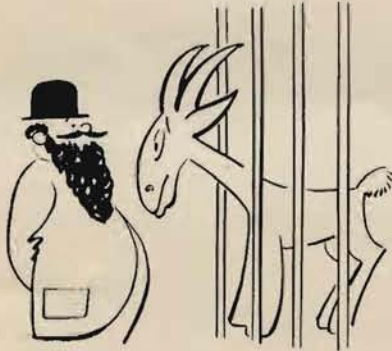


THE LEOPARD

Non-Ruminants among the even-toed hoofed animals comprise the wild swine, which are represented in nearly every part of the globe. Cleveland Zoological Park has two members of this group. They are:

The Collared Peccary. This is the American representative of the wild hog tribe. Its range is from Arkansas and Texas to Patagonia. Generally a forest dweller, it feeds on fruits and roots and causes much damage to crops. A unique feature of the peccary is a gland in the middle of the back that secretes an oily, evil-smelling fluid.

European Wild Boar. This is the Old World representative of the swine, now found in parts of Europe, Africa and Asia. Once they lived in the British Isles, where boar hunting was popular. A marked difference between this and the New World swine is that its tusks project upward, while in the others the tusks are directed downward.



The Tahr's a goat, who feels quite sad
About the beard he never had.

QUIZ

1. Which of the great apes has the longest tail?
2. How many toes has a two-toed sloth?
3. What is the largest animal living at the present time?
4. How far can a wombat fly?
5. What species of wildlife would you want to borrow from the zoo if you were all out of cigarettes?
6. What would you borrow if you were going on a picnic?
7. What would you borrow if you were going to a ball game?
8. What would you borrow if you were entered in a bridge tournament?
9. What is the smallest of all the mammals?
10. If you asked a zoo guide to direct you to the place where you could see the Laughing Jackass, would you see a donkey when you got there?
11. What animal has hair on the bottom of its feet and why?
12. What is in the camel's hump?
13. What is the most useful thing about the elephant's trunk?
14. What is a "hay-burner"?
15. What animal is worshipped by some people in India?
16. Is a giraffe really mute?
17. Does an ostrich hide its head in the sand when being pursued by enemies?



(See Quiz Answers on Page 98)



An elephant planning a blessed
event
Knows six hundred forty-one days
will be spent
Before she will know and can
answer with joy
That question of "Is it a girl—or
a boy?"



"Why do you like the elephant the best of all the animals at Cleveland Zoo?" a little boy was asked as he stood admiring the swaying beast. "Because it's the biggest," he answered quickly, and I imagine that's as good a reason as any for the popularity of this pre-historic colossus. At one time, these creatures roamed the entire earth, along with the mastodon and dinosaur, but now they are found only in Africa and India. The elephants most frequently exhibited in zoos and circuses are from India, and our elephant at Cleveland Zoo is that kind. African elephants are less amiable and more difficult to tame and exhibit. There are a number of differences in the two kinds of elephants, but the easiest way to tell one from the other is by the ears. The Indian elephants have smaller triangular shaped ears, and the African have large sail-like ears.

The most remarkable thing about the elephant outside of its size, is the trunk. Through this mass of muscle the animal breathes and carries food and water to its mouth. Contrary to popular opinion, the elephant does not move heavy objects with its trunk, but, instead, uses it for balancing. The tusks and head are used for heavy work, for the trunk is very sensitive, and in the jungle, when engaged in battle, they coil their trunk tightly to protect it.

At the end of the Indian elephant's trunk is a finger-like appendage that is so delicate it can pick up an object as small as a blade of grass. The African elephant has two of these "feelers."

Female elephants are almost always the ones exhibited, for they are more easily captured and have better dispositions than the males. They are usually docile and are not difficult to train, but this is not because of a high degree of intelligence. In fact they express less intelligence than a dog and less than most hoofed animals.


In the wild state, they live in herds of about 30, and they're like one big family. The cows protect and coddle the young, and the bulls are constantly alert, their trunks thrust upward testing the air for the scent of an enemy. Sometimes an old male goes berserk, and when this happens he leaves the herd and becomes an outcast or rogue. These unhappy creatures travel alone and charge through the native villages, tearing down the frail huts and tramping anything that gets in their path. They are a terrible menace and are always hunted down and destroyed.

The fiction about elephants never forgetting still persists, but scientists



Putting Frieda, the Indian elephant, through her paces, this lad is really up in the world.
The crowd thinks it looks like fun—in fact all the kids would like to try.





agree their memory is no more remarkable than many other animals. They seem to feel more secure when they have the same keeper for a long period of time, and in India a Mahout is assigned to an elephant for life. Another persistent rumor is the one about the elephant graveyard. The story goes that when an elephant knows its time has come, it leaves the herd and goes alone to a mystic, secret spot where for thousands of years elephants have gone to die. There, so the natives will tell you, lies a tremendous fortune in ivory tusks, for time does not dim the value of ivory. The story gains momentum because very few elephant carcasses have ever been found. The de-bunkers claim that is because they are consumed by other animals and insects, but the adventurers point out that even the bones are not found.

The familiar expression "white elephant" has an interesting origin. White, or albino elephants are very rare, and in India are held in great veneration and worshipped. Whenever one is discovered, it immediately becomes royal property, and since it is not allowed to work because of its sacred status, it is quite a drain on the royal exchequer, and thus the phrase "a white elephant" is a synonym for a thing of great expense.

There's something very satisfying about seeing one of these lone survivors of ages gone by. You feel as though you've looked in on one of the pages of the hidden past.

TRUE OR FALSE?

The lioness has a luxurious mane,
She lives in the hills and not on the plain.

Our Kodiak Bears have received their name
From the Kodak of picture-taking fame.

As eerie a sound as could ever be
Is the Laughing Hyena's "He-he-he."

The lemur clumps on heavy feet
And noisily hunts bear to eat.

(See True or False Answers on Page 99)



MISCELLANEOUS ANIMALS

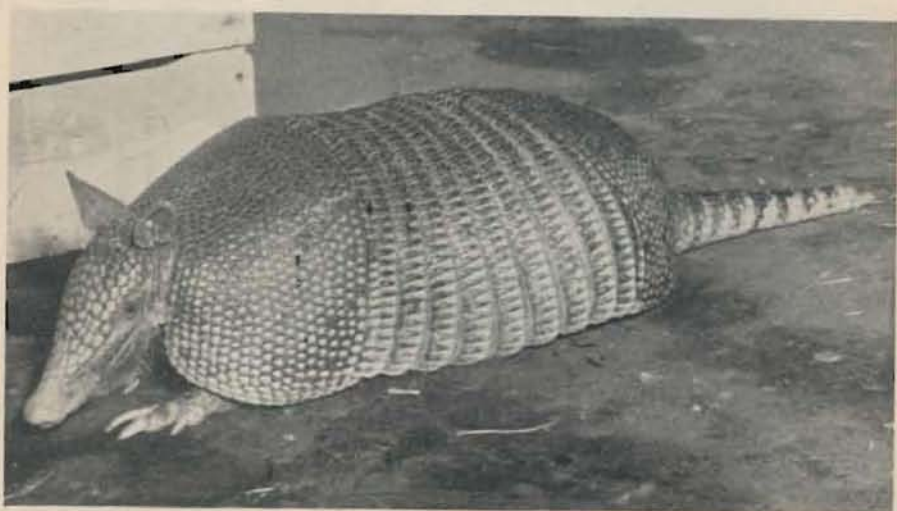
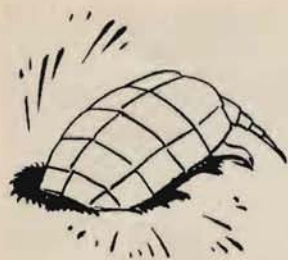
The Opossum is the only pouched animal that is native to the United States, and it comes from the southern section. A mother 'possum usually has about a dozen babies in a litter, and when they are born they are only an inch long. They are placed in an external pouch immediately, where they can feed, and there they stay until they are five weeks old. Then the mother begins to widen their horizon, letting them climb out on her back and exercise a bit. She often arches her prehensile tail over her back, and the little ones instinctively grasp it with their tails, hanging upside-down like veterans.

The expression "playing 'possum" comes from this animal's instinctive reaction to danger. It makes itself rigid—even its breathing is suppressed, and the most painful handling won't make it return to normal. This is usually spoken of as the 'possum "playing dead," but most scientists argue that since a 'possum knows nothing of death, that is a mis-statement.

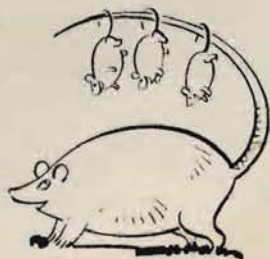
Many believe that the animal goes into a sort of faint because of extreme fear, and that cunning does not enter into the process. These small tree dwellers, with their sharp muzzles and thick fur coat, are very destructive in habit. They have ravenous appetites and rob bird nests and poultry houses indiscriminately, as well as eating vegetable matter. The specimen we exhibit at Cleveland Zoological Park is the Virginia Opossum.

The Armadillos range from Texas through Central and South America, and the specimen we have at Cleveland Zoological Park is the only one that comes from the United States, the Nine-Banded Armadillo. These comparatively small creatures are regular armor bearers, and their bony covering gives the impression they would move with difficulty. On the contrary, their rows of horny plate are connected by rings in a sort of ball-bearing system, which allows them perfect freedom of movement.

Nature's special provision for them, outside of their armor, is a set of heavy digging claws which they put to good use in their scavenger activities. Another protection they have is the way their armored head can be partly drawn back into the body.



"To arms!" The Armadillo cried.
And straightway grew an armored hide.

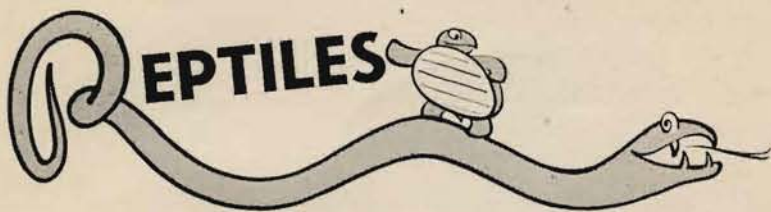




"You're so luscious I could swallow you whole," says the Boa Constrictor.



The Gila Monster looks like an Indian bead-work design and blends right into the pebbly ground.



Reptiles in North America are divided into four orders or groups—

1. Turtles and Tortoises; 2. Crocodilians; 3. Lizards; and 4. Snakes. Generally speaking, they are similar in that they all are covered with scales or plates of various forms. Another common characteristic is the creeping and crawling manner in which they move about. They are sluggish in temperament and are cold-blooded, their body heat being regulated by the temperature of their surroundings. Reptilian young are hatched from eggs and have their natural form at birth. In many cases, however, the young escape from the eggs before they are laid.

LIZARDS

Lizards are especially well protected in their coloring, and as they flick themselves through the grass or among sand and pebbles it is almost impossible to see them. We have several specimens of this group at Cleveland Zoological Park.

The Horned Lizard comes from a hot, dry climate, usually the Western part of the United States or Mexico. They are covered with spiny scales that make them look rather forbidding, but they are harmless. In the wild state, they eat insects, and catch them on their tongue like a toad would do.

The Gila Monster is beautiful to look at, with its salmon pink and black, bead-like surface. It comes from the desert regions of Arizona and New Mexico and is one of two poisonous lizards. Its jaws are amazingly strong and have to be pried off the object grasped. While the poison it exudes is not fatal to human beings, it is very distressing and its bite is fatal to snakes, frogs and similar creatures. The tail of the Gila Monster acts as a reservoir for food and serves it in the same manner as the camel's hump. When the Gila is well-fed, the tail is thick and round, but during a fasting time it decreases in size.

SNAKES

Snakes are probably the most maligned members of the animal kingdom. They are feared usually without reason, and all kinds of superstitions have grown up about them. Relatively few snakes are poisonous and they help the farmer by destroying rodents and insects that would rob him of his crops. When a snake's skin becomes tough and hard, it sheds it so as to facilitate breathing and growth. This

takes place between two and seven times a year, and the creature accomplishes it by rubbing between two stones or similar objects. The snake-haters insist that its skin is cold and slimy to the touch, but on the contrary it is smooth, dry and not cold at all.

Poisonous snakes accomplish their attack by stabbing the victim with their fangs. These fangs are connected with a gland located on each side of the head in which the venom is stored.

At Cleveland Zoological Park we have the following specimens of poisonous snakes:

The Cotton-Mouth or Water Moccasin which comes from the West and does not occur in Ohio. The habit of the snake of opening its mouth to disclose the white interior is responsible for the name.

The Copperhead is brown in color with dark brown bands and a lighter coppery head—hence the name. It is often found on high, rocky ground and although not numerous, has been found in Ohio.

The Massasauga is a type of rattlesnake and generally sounds a warning in the traditional fashion when ready to strike. It likes low, swampy land and is not rare in Ohio.

The Diamond-Back, which is found in the South, and is particularly abundant in Florida, is the largest of the rattlers and the most deadly of the North American poisonous snakes.



The following snakes are not poisonous:

King Snakes derive their name from their habit of killing off members of their own kind, both the harmless and poisonous varieties. They are inoffensive to man, and they are helpful in destroying rodents as well as reptiles.

In our collection we have from this group the California King, which is one of the smaller types and comes, as its name indicates, from the western part of the United States. We also have the milk snake which often is found in the vicinity of dairy farms. The story that this creature milks the farmers' cows and makes great inroads on his milk supply is utterly false. In the first place, snakes won't drink milk, and, in the second, the greatest amount of liquid it could hold would be about two tablespoons.

Garter Snakes are probably the best known of all, for they are found all over the United States. They have as high as fifty young, usually born in August. You find them in sunny places in the woods until winter, when they hibernate.

Water Snakes live in swampy places or close to rivers, ponds or lakes. At the first approach of danger they can dive to the bottom and remain

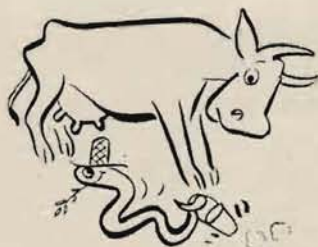
there for some time. Our specimens from this group are the Common water snake and the Queen snake.

Boa Constrictors are so called because of their habit of swallowing their prey whole in such a manner that the snake seems to draw itself over its victim. They eat mice and birds—fur, feathers and all. We have four of the smaller specimens—the Central American, South American, Bahama and Mexican boas.

The Racers are generally large in size and very agile in their movements. Several species exist in the United States and of these we have one, the Black Racer. It is blue-black in color and can travel at surprising speed. In June or July it deposits one or two dozen eggs under flat stones or in soft, moist soil, where they are found more frequently than the eggs of most species of snakes.

The Bull Snakes sometimes grow to be very large and can be recognized by their sharply pointed snouts, and their habit of hissing when angry. We have one of this species in our collection, the Pine Snake.

The Rat Snakes are so named because they are especially adept at destroying rodents. Of these we have the Fox snake, whose name is derived from a secretion it ejects that is similar to that of a captive fox. Others are: the blotched chicken snake, and the four-lined chicken snake, whose coloring and the fact they steal an occasional chicken as well as hunting mice, have given them their names. The corn snake, which is often found in fields of growing corn. And the Pilot Blacksnake. This last has been so named because of the erroneous idea that it warns other snakes of approaching danger and leads them away to safety.

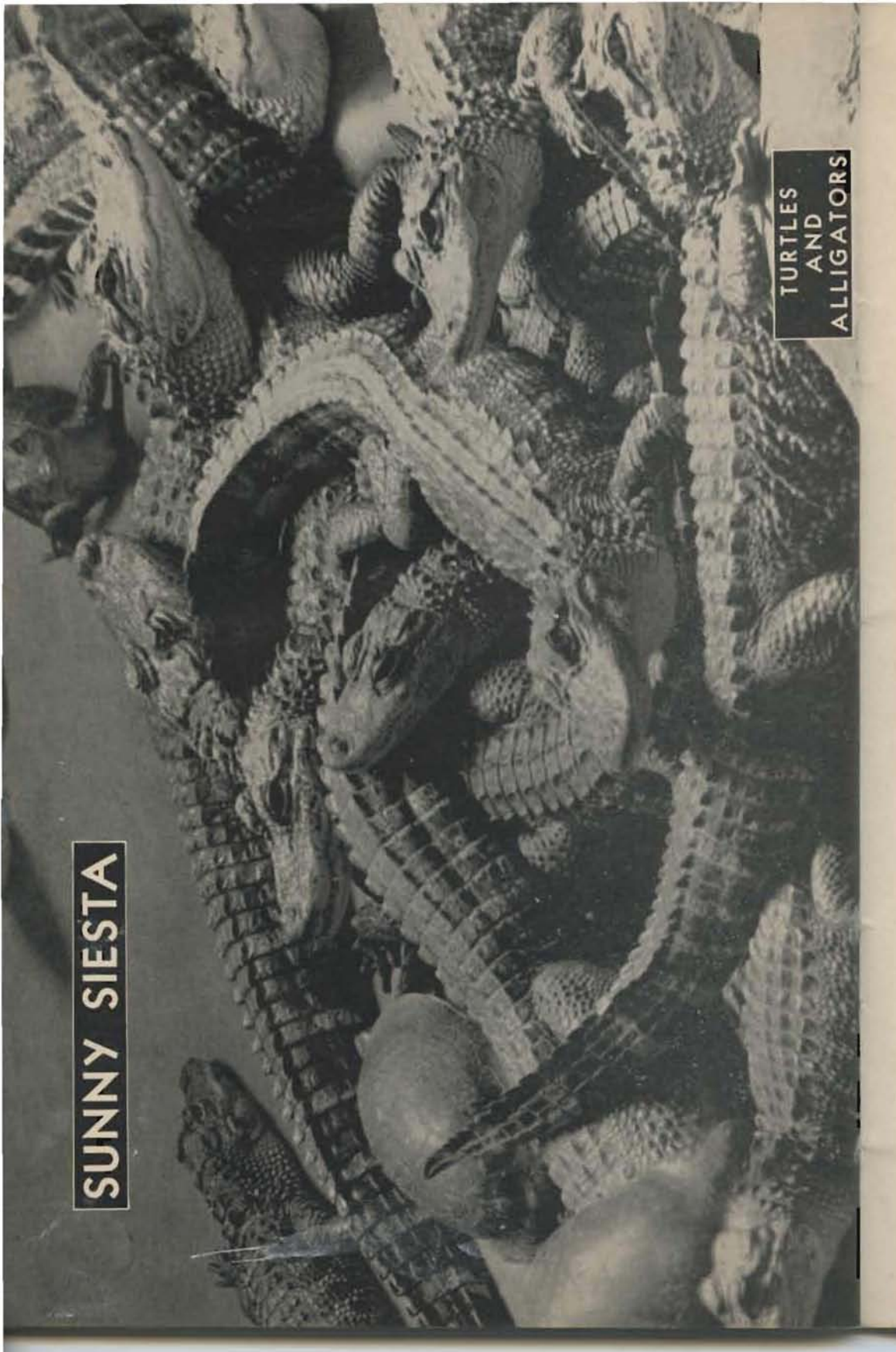


Can a milk snake milk a cow?
If so, kindly tell me how.

(See Verse Answer No. 4 on Page 99)

SUNNY SIESTA

**TURTLES
AND
ALLIGATORS**





SNOOTY BEAUTY

I heard of a contest that made me smile
The 'gator against the crocodile.
They were matching noses and it was a test
To see which the judges liked the best.
The crocodile with her narrow snout
Thought it was something to brag about.
The 'gator on the other hand
Figured her broad blunt nose was grand.
The judges' written vote was flip.
It said: "They're both a great big drip."



THE ALLIGATOR

The American Alligator and the American Crocodile are the two species of Crocodilia that exist in the United States. At Cleveland Zoological Park, we have the Alligator. The easiest way to tell the difference between an Alligator and a Crocodile is the shape of the head and snout. The Alligator has a broad head with a blunt snout, and it has a heavier looking body, since it weighs about a third more. The Crocodile has a narrow, pointed snout.

Alligators in the Southern part of the United States used to exist in great numbers, but now they are becoming very rare and are threatened with extinction. The demand for their hide for leather, combined with the use of the young for curios and also the fact that some hunters consider it great sport to shoot them, is a major factor in their predicament. Another reason is that secluded spots in the South are rapidly being made into resorts and the creature has neither the fish to feed on, nor the privacy it needs to rear its young. A 15 foot 'gator used to be about the average size, but now a 12-footer is considered a giant. Alligators in this country are harmless to man and will dash for the water if you surprise them. In coloring, they are black or dark brown, with yellow markings which fade as they get older.

The Crocodile is found mostly in the salt water marshes of Florida, and since it frequents places that are more inaccessible than the alligator, longer specimens have been found. Scientists have reported some that measured 14 feet. These creatures are much more agile than the 'gator and are quite vicious in captivity. In the wild state they are not aggressive toward man but will flee from him. The well known "man-eating" crocodiles are found in India and Africa.

TURTLES AND TORTOISES

The members of this group are easily recognized when you remember that the tortoise has a high, dome-like shell and club-shaped feet, and is the species that goes on land and is almost helpless in the water. Turtles, on the other hand, have webbed feet and usually are at home in the water.

At Cleveland Zoological Park we have among our specimens the—

Common Snapping Turtle. It has a huge, powerful head, and broad, webbed feet with large, thick nails. It cannot completely withdraw itself into its shell. This creature is a bold, aggressive fighter and is capable of severing a finger if one should be careless enough to come within reach of its darting head. The rapid movement of the head, combined with keen vision, enables it to catch fish easily, and this forms a major part of its food. The snapping turtle feeds under water—in fact it cannot swallow unless its head is under. It weighs about 40 pounds, and the only safe way to handle it is to pick it up by the tail and keep safely away from its snapping jaws.

Alligator Snapping Turtles are regular giants, some of them weighing as much as 140 pounds. They are like the Common Snapping Turtle except for size, and their enormous jaws are capable of amputating a foot. In the water their protective coloring makes them hard to see and they can remain submerged for a long time. They are a booby trap for unwary fish, for in their mouth is attached a white piece of skin that resembles a grub. While under the water, they keep their mouth open and make this skin move slowly to attract the fish. Then, as the fish glides near to investigate, out snaps the turtle head, and it's good-bye Mr. Fish.

Common Box Turtles have an arched, globular shell, and they can withdraw into it and close it so tightly you could not insert a toothpick under the shell. The muscles of the turtle hold the shell closed, and, once they withdraw, they usually remain that way for at least an hour—or until they are sure all danger is past. The borders of the shell curl outward and the edges upward, and in color it is brown or black with yellow markings. This turtle stays on land and is the best protected of all the reptiles. Even when its shell is damaged, it has great recuperative powers and can recover from the most severe wounds.

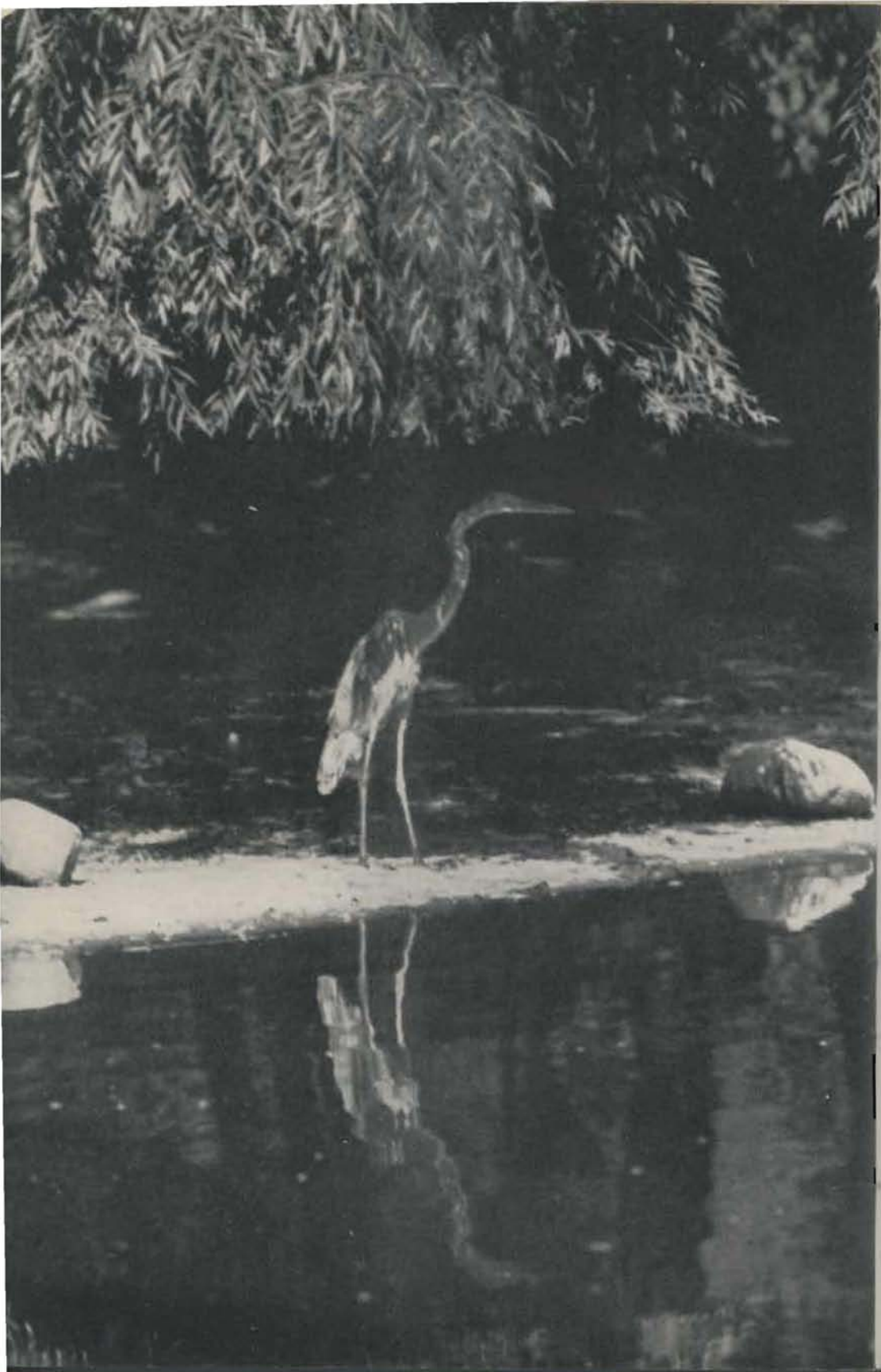
Terrapins are a species of turtle that frequent the edges of ponds, brooks and rivers. They have a broad, flat shell and their hind feet are webbed. They are excellent swimmers and are usually found partially submerged on a log, which they can leave quickly when alarmed.

The Painted Terrapin is characterized by a high, dome-like shell and a tiny head. It is a large species and weighs about 14 pounds. In coloring its shell is brown or black. The head is intensely black with a few fine yellow lines on the neck and chin.

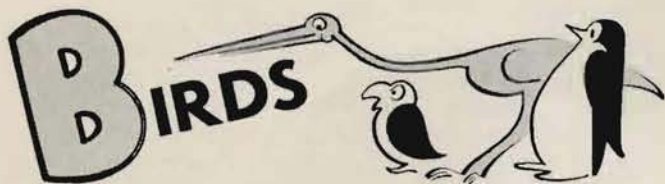
* * *



The turtle lives within his box.
For him, no cozy back-fence talks.
An isolationist is he
He doesn't care for you or me



BIRDS



The members of the animal world with which the majority of us are most familiar, because we see some of them every day, are the wild birds. It may be just a robin on the front lawn, but the wonders of bird life are continually before us, inviting our exploration in a field of nature that holds both excitement and mystery.

How does that robin manage to travel thousands of miles in its yearly migrations and return to nest season after season in the same tree? Even the scientists cannot entirely answer that one. And the question of what guides birds in their migratory flight is truly something to wonder about.

Birds are of many kinds, and there are some that do not fly, but essentially they are all warm-blooded vertebrates that are clothed in feathers and lay eggs. Also, they have toothless jawbones which at the extremities are developed into beaks, or bills. With those common characteristics, bird species have, over the centuries, adapted themselves to their particular environments in many ways, both in habits and variegated physical structure.

In most birds, for example, the forelimbs are wings used in flying, but with the penguins they are flippers to be employed as paddles in swimming. The hind limbs in some are used for perching; others, like the ostrich and the emu, use them for walking and running. In bird flight we have the rapid wing beats with which the tiny hummingbird is able to hover, and, by contrast, the almost motionless, and seemingly effortless, gliding of the vultures. The bills of the birds of prey are sharp and hooked, for seizing and tearing, while in the seed eaters they are adapted for cracking husks. In plumage the owls are clothed in somber, mottled colors, but the noisy parrots and macaws are gaily arrayed in the brightest hues.

Everywhere in bird life there is this great diversification. And in the zoological park, with species from many parts of the world, much of that drama of the birds is on display.

◀ A Lonely Sentinel is the Great Blue Heron, which you often see in the Ohio marshes. He is a wading bird that stands patiently and perfectly motionless in the water. Then when an unsuspecting fish glides by, down darts that long neck and up comes the fish in his sharp bill.



PERCHING BIRDS

This is a large, varied group, including about half of the known birds of the world. In general the members are small, or medium sized. Their toes—three forward and one behind—can be bent downward to get a grip on a twig or perch. Our best songsters are found among the perching birds, and in selecting some of the prima donnas of this order one thinks of such superior vocalists as the canaries, the finches, the nightingales, the mockingbirds, the thrushes and many others. The young characteristically are naked and helpless when hatched, in contrast to birds of other groups that are able to run around almost as soon as they break out of the egg.

The Cleveland Zoological Park collection has some representative perching birds, including some of the finches and canaries, and such northern Ohio species as the cardinal, cowbird, redwing, crow, and thrushes.

PIGEONS AND DOVES

This group, represented in all parts of the world, is known for powers of flight. Indeed, the Bible tells us it was a dove that was sent as a messenger out of the Ark. These birds, too, have been particularly beloved by man, and today the expression "gentle as a dove" is well known, the phrase originating from the gentle "coo" that is common to all pigeons and doves.

The young, at first, are fed with a milky fluid which is disgorged by the parent birds from glands in the crop. The fluid is sometimes called "pigeon's milk."

To this group once belonged the famed Passenger Pigeon, which only a few decades ago existed on this continent in countless numbers but now is extinct. Members of the order in our collection include the ring-neck dove, African triangular wing dove, Australian bronze wing dove, Australian crested dove, pearl neck dove, diamond dove and bleeding heart dove.

FOWLS AND GAME BIRDS

In this classification are birds which have strong legs and toes for running, well developed claws for scratching the ground in search of food, and digestive organs which include a crop where grain is softened, and a gizzard which reduces it to pulp. When hatched, the young are clothed with down and are able to run within a few hours after emerging from the egg.

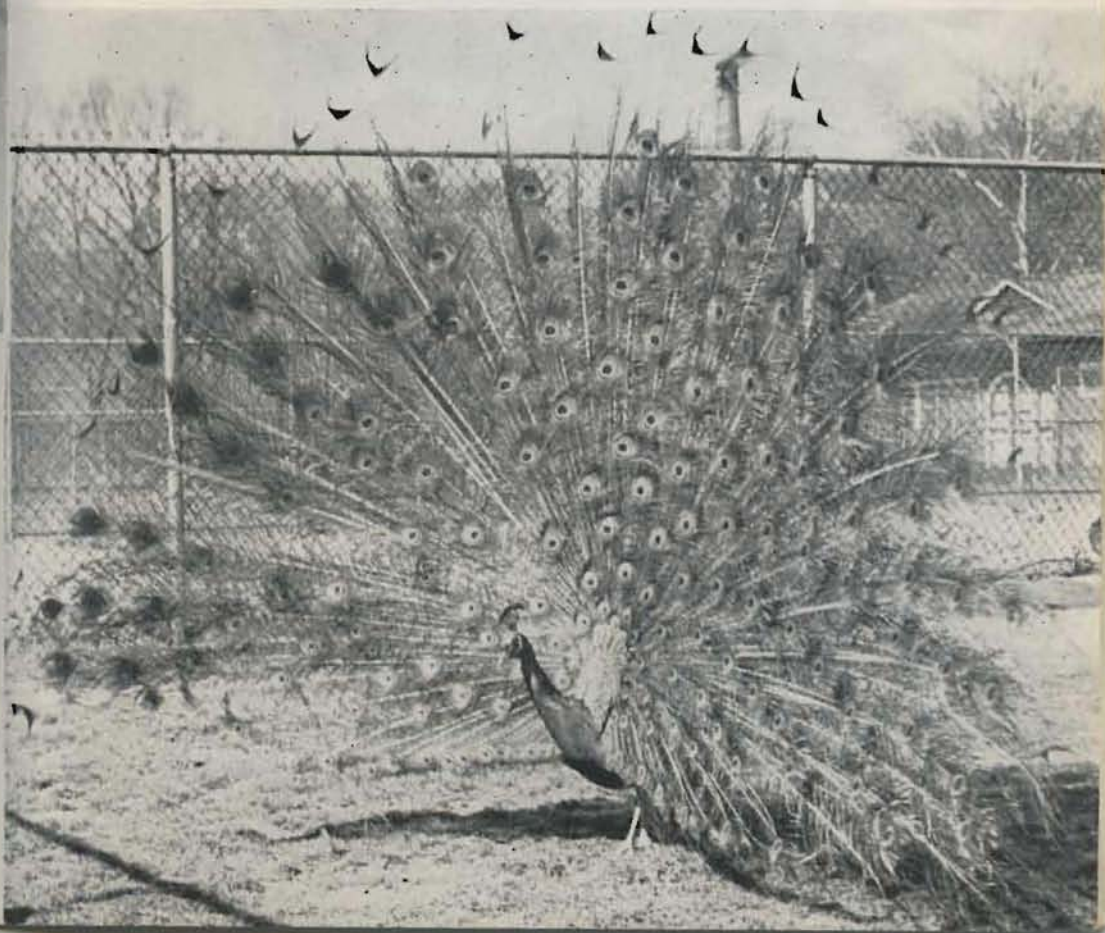
Peafowls are the birds commonly known as "peacocks." In your trip through the zoo you are apt to hear harsh screams. When you do you will know there is a peacock around, for this is one way he has of attracting attention to himself. But his most celebrated manner of showing off is his magnificent feather display. The peacock's ornamental train, by the way, is not the bird's tail feathers as is generally

supposed, but is made up of the elongated upper tail coverts. The real tail feathers, which are short and rigid, enable the bird to keep his train spread while walking about. All this display is for the benefit of the admiring hens, of which the male bird normally keeps a harem of four or five during the mating season. Once the breeding season is over, this beautiful plumage is cast off. The common peafowl is a native of India and Ceylon.

The Red Jungle Fowl is the bird from which all our domestic poultry is said to be descended. It is, as the name suggests, a bird of the forest, where it seldom takes wing, and it is found in India, Indo-China, the Malay peninsula and the Philippines. Jungle Fowls in their native haunts have some of the characteristics of our domestic fowl; the males crow and the females cackle.

Pheasants are one of the so-called "game birds," a group that also includes the grouse, partridge, quail, and ptarmigan. Though pheas-

Here, the peafowl, or peacock, is using the more subtle approach in his bid for attention. If the showy plumage doesn't do it, he'll scream.





(Sarus Crane)

sants are frequently seen wild hereabouts, their native home is Asia Minor. From there they were introduced into the European countries and North America. The cock bird has a brilliant display of plumage, but the hen, by comparison, is of dull dress.

Among the pheasants in our collection are the golden, Lady Amherst, silver, kaleege, Reeves, ringneck, and swinhoe.

CRANES

The members of the crane family frequent marshy districts and grassy plains, and they are known for their long legs, necks, and bills. They are fast runners and oftentimes would rather run than fly. An odd coiling of the windpipe gives the cranes a loud, resonant voice, which is most marked in the whooping crane. Those that migrate customarily fly at great height.



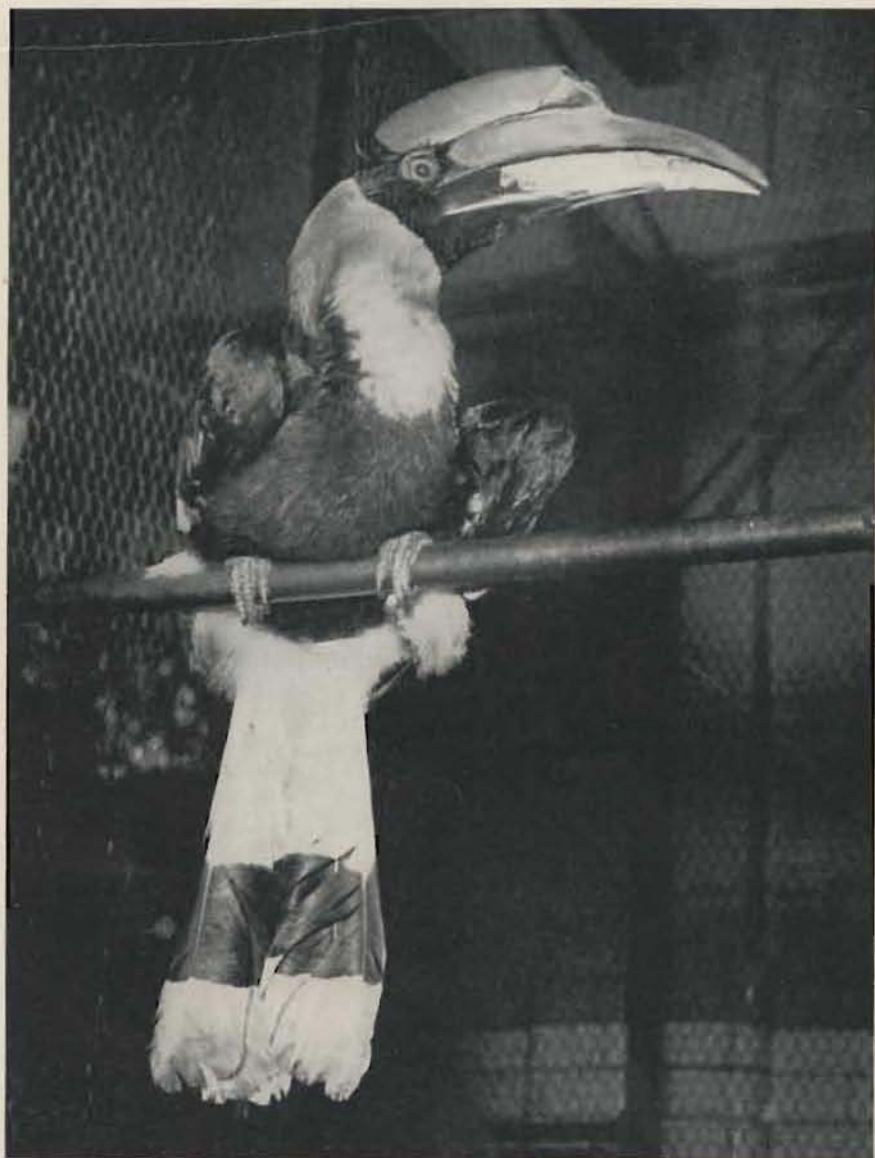
(European Stork)

Three species of cranes are found in North America—the whooping, which is the largest; the sandhill, most abundant, and the little brown. Our specimens in the zoo are the Saurus Cranes, native to India.

HERONS AND STORKS

Herons frequently are confused with cranes, for their appearance is quite similar. The easiest way to differentiate is to remember that cranes for the most part are dry land birds, while herons are wading birds. Also, cranes build their nests on the ground, while herons build them off the ground. Storks are grouped with the herons because for one thing they, too, are wading birds.

Storks have long been the fictional baby dispatchers, a role that is the result of their nesting habits. The European white stork, which is the



The African Hornbill is one of the noisemakers of the jungle. He is a wobbly flyer, and as he stumbles along through the lower air, he emits a clacking noise that sounds like a bunch of castanets gone mad.

variety we have in the zoo, and is the best known, likes to build its nest on house roofs and frequently will show great preference for chimney tops. With the long-legged bird nesting in such proximity, mothers of new-born babies have always found it convenient to say, in response to youthful queries, "Oh, the stork brought it."

Storks are birds of the marshes, where they feed on lizards, eels, snakes, frogs and insects. They are voiceless.

The Great Blue Heron is common to North, Central and South America, and an adult will stand about 4 feet tall. They are frequently to be seen in our northern Ohio marshes, where one is apt to find them standing motionless in the shallows, waiting patiently for sight of a fish or frog. Once a heron spies his aquatic quarry his long neck and bill shoots forward with a lightning-like thrust. If it is a fish, it is swallowed head downward, the bird thus avoiding being scratched by the fins. Herons characteristically nest in colonies and build their nests in tall trees.

HORNBILLS

These birds, found chiefly in the tropics, are known for their grotesque bills, which are extremely large, and curved, and are surmounted by a casque. Another oddity that is characteristic of this group is the presence of prominent eyelashes, a rarity among birds. There are about 60 species of hornbills, ours in the zoo being the African. In addition to Africa they are native to India, the Malayan countries, Celebes, New Guinea and the Solomon Islands.

Hornbills nest in holes in trees, and it is the practice of the male to "lock" the female in by building a wall of mud over the hole so there is barely enough room for him to pass food to her while she sits on the eggs. The wall remains until the young are nearly fledged.

PENGUINS

The penguins choose lonely spots for breeding, but among themselves they are very sociable, and live in large colonies, making their shallow nests in such proximity to each other that an intruder would have difficulty finding a place to walk without crushing the eggs. Penguins are more at home in the water than any other birds. They are expert divers and can swim beneath the surface of the water, emerging only briefly to breathe. Their wings, while useless in flight, make excellent paddles and are helpful in propelling them along the surface. On land they are very slow and clumsy because their oversized feet are placed so far back on their body.

The Jackass Penguin comes from the shores of South Africa and is so-called because of its loud, braying voice. Another familiar species is the Humboldt Penguin, which comes from the coasts of Chili and Peru. The largest of the group is the Emperor Penguin, which is from the Antarctic. About twenty living types of Penguin are known.

FALCON-LIKE BIRDS

In this grouping are the birds of prey—birds of robust build, with powerful wings for swift flight and pursuit, bills specially adapted for tearing flesh, and feet with sharp, curved claws. About one member of the group—the vultures—there is some argument as to whether they are, strictly speaking, birds of prey, since they generally feed only on carrion. But they resemble the others closely enough in other respects to be included in the order.

Turkey Vultures are the large “buzzards” we see in this vicinity. They soar at considerable heights—sometimes almost out of sight—and they seem to float in the air, describing great spirals without any apparent movement of the wings. How they are able to locate their food from such heights is one of the wonders of bird life. Obviously they must have remarkably keen vision. A full-grown Turkey Vulture will have a wing spread of six feet. A very noticeable characteristic, on close view, is its naked, crimson-colored head.

The King Vulture is from tropical America, extending into Mexico and southern Arizona. It is a bird of the forests and is the most brilliantly colored of the vultures. The “king” has a lead-colored ruff about the neck, a blue and scarlet head, and an orange and black bill.

The Black Vulture is also found in the American tropics, as well as some of our southern states. It is easily distinguished from the other two vultures we have described, the naked skin of its head and fore neck being a dusky color. It is sometimes called the carrion crow.



(Carra-Cara)



(King Vulture)



You often see the Turkey Vulture out in the country soaring tirelessly for hours on end. His powerful wings were made for endurance and gliding, rather than speed.

The Cara-Cara, like the vultures, eats carrion, but it also preys upon live snakes, lizards, frogs, young alligators and some of the small mammals. One of its favorite tricks is to swoop down on a pelican and frighten the bird into disgorging its food, which the Cara-Cara then feasts upon. Its range extends from the southern United States to South America.

The American Eagle is known also as the Bald-Headed Eagle, and White-Headed Eagle. While it is not bald, it has the appearance of being so because of the white feathers on its head and neck. Although native to this part of the country, the American Eagle is now rarely seen in this vicinity. It nests in trees near a body of water, and has a great fondness for its home, returning year after year. An adult will have a wing spread as long as eight feet.

Eagles, as a group, have long been considered the monarchs of the birds, being the symbol of strength, courage and dignity. Long ago the Romans used the eagle as the ensign of the legion, and the figure of an eagle was emblazoned upon the banners of the ancient kings of Babylon and Persia. Today the American Eagle is the national emblem of the United States.



The White Pelican (above) seems to have his eye on a fish dinner. Below, one of the Brown Pelicans is showing what a large wing spread he has.

W



The Golden Eagle, although about the same size as the American eagle, has a much wider distribution and is better known around the world, sometimes being called the "King of Birds." Besides being found in North America, it is native to some parts of Europe and northern Asia.

PELICANS

These birds live on fish, and nature has provided them with a ready-made net to enable them to catch a quantity of fish at once. This net is the pouch that is suspended from their lower bill. One of the outstanding things about them are their very large wings, which often have a ten-foot spread. Although they are strong fliers, they have to have a considerable runway to get off the water. Their bodies are heavy and clumsy, and as they stumble along the surface of the water, flapping their big wings hard in an effort to gain the air, they resemble a heavy over-loaded bomber. Once in the air they are graceful and sure of themselves in flight. These birds are very sociable, and live in communities, often on islands.

Brown Pelicans are found in Florida and they have a systematic and interesting way of feeding. They line up in follow-the-leader style, take to the air, and, flying close to the surface, dip down and then up with a scoop full of fish. Their fishing has been reported as being perfectly synchronized so they don't interfere with each other. In feeding the young, the older birds get a pouch full of fish, and then, alighting in the midst of the youngsters, open their bills and permit them to help themselves.

White Pelicans are found in California and their method of fishing is somewhat different from the brown. The community of birds arrange themselves in lines in shallow water a little distance from the shore. Then, flapping their wings and disturbing the water, they drive the fish in toward shore, where they can scoop up large quantities of them easily.

DUCKS, SWANS AND GEESE

Our collection of birds in this group is displayed in the new Waterfowl Sanctuary, which is one of the most beautiful zoological park exhibits of its kind anywhere in the world.

Here, in a natural setting—in a lake covering approximately three and a half acres—are to be found 30-odd species of waterfowl. It is the expectation that as years go on the sanctuary will, indeed, become a stopover station for migratory fowl on their yearly flights. Every effort has been made to preserve the true, northern Ohio setting, and two large islands in the lake have been planted with native trees and shrubs.

The Swans to be seen in the sanctuary are the Mute Swan and the Australian Black Swan. The mute species is so-called because in its



Pictured above are a pair of Snowy Owls. At the lower right are two Barn, or Monkey-Faced Owls, and on the left the Horned Owl.

OWLS

Owls are more often heard than seen, because most of them are nocturnal, but in the zoo you have a fine opportunity to view some of the better known species up fairly close. Their soft, fluffy plumage exaggerates their size, and it is easy to see how their big eyes and solemn, philosophical expression have made them a symbol of wisdom.

Their toes are armed with sharp claws and their bills are short but strong, with the upper mandible curved. They are capable of swift, silent flight. All of this makes them great hunters of small mammals, particularly such rodents as rats, mice and shrews. These morsels are eaten whole, the owls later disgorging such indigestible portions as the bones and hair in the form of pellets.

In Ohio there are seven owls that are residents of the state—the great horned owl, the short-eared, long-eared, saw-whet (so-called because of the similarity of its cry to the sound made by filing a saw), the barn, the barred, and the screech. In Cleveland Zoological Park we exhibit the following:

The Great Horned Owl frequents the forests, and because there is not nearly so much heavily timbered land in Ohio today, this big owl is not as common as it was in pioneer days. Two prominent tufts of feathers over the eyes have the appearance of horns. In this vicinity it is the earliest breeder of all the birds. When snow is still on the ground, the great horned owl already is sitting on its eggs, which generally number two or three. This and the barred owl are Ohio's two "hoot" owls.

The Barred Owl is next to the great horned in size. During the day it conceals itself in hollow trees and dense woods, coming forth at night to hunt. It prefers a large cavity in a tree for a nesting site.

Barn Owls have very long wings for the size of their body. Although they are nocturnal, they can see in the brightest daylight. In a night they can destroy a surprising number of rodents. The Barn Owl is second only to the Screech Owl in abundance in Ohio. Its odd looking face has earned it the nickname of "monkey faced owl."

Snowy Owls, although residents of the Arctic, are sometimes seen in Ohio. They get this far south every six or seven years, their southern "invasion" apparently being caused by shortage of food. They feed largely on the Arctic lemming, although they also prey upon waterfowl and are strong enough to make off with an Arctic hare, which is just about as big as they are. Unlike many other owls, the snowy owl is active during the daylight hours.





The female ostrich is busy admiring her own shadow, while the male is giving some other slick chicks the eye.

THE OSTRICH

This plumed giant is the largest of living birds, and an adult male will stand 8 feet in height and weigh about 300 pounds. The ostrich comes from Africa and lives in small flocks on the desert and open plains. It is wary of man but is friendly with such animals as the zebra and the antelopes and often joins up with them. Because of its ability to go for long periods of time without water, the ostrich is sometimes called the camel-bird. One of its greatest protections is the speed with which it can out-distance any pursuers.

It can run about 60 miles per hour — faster than a horse, although its habit of running in a curve gives an advantage to a straight-line runner. It is no stream-liner, for in running it spreads its great wings wide and stretches its neck out ahead. The ostrich has only two toes and it defends itself by kicking forward and by attacking with its wide, flat beak. It cannot fly. These birds mate at about four years of age, and remain with one mate for life. Ostrich plumes are in great demand

commercially, and the birds are domesticated for this purpose. Taking their feathers is a painless process, for a hood is slipped over the head, making the creature quite docile. Then the feathers are cut and later the dried quill is removed.

The Emu is the second largest living bird, and comes from Australia where it frequents grassy plains and open forest country. It stands about five feet in height and its loose feathers give it a hairy appearance. The Emu is very much at home in the water, and its outstanding ability as a swimmer aids it greatly in escaping from enemies. Like the ostrich, it defends itself by kicking, but its method is sideways and backwards, instead of the forward attack of its cousin.

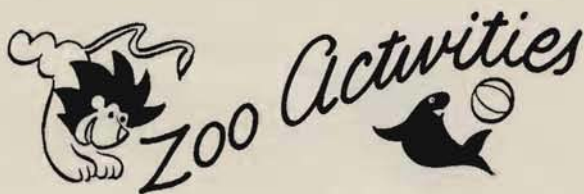
* * *



"Whoop," said the owl sittin' up in the tree.
"Whoop down there's as wise as me?"
"I know my head is screwed on tight
"And I can turn it left to right."

That story of splitting the tongue of a crow
To make it start talking—well, that isn't so.

The African hornbill is a case
His bill is spread all over his face.
He seals his mate up in a tree
To have her young. Then sets her free.



The Zoo Circus is an annual summertime activity, running from the middle of June to the first of September. In a 30-minute show there are exhibitions of wild animal training, showing how animals can be taught through kindness. Among the performers are young lions, a liberty pony, an American black bear, a high-diving monkey, a tight-wire-walking goat, and some acrobatic monkeys.

The Children's Zoo is the menagerie to the circus, and here are to be seen many of the nursery rhyme characters—the goose that laid the golden egg, Baa Baa Black Sheep, the Wise Old Owl, and others. Also on display are Poucho the 'possum, Porky the Porcupine, Harriet the Honey Bear, and Sammy the Talking Crow.

Pony Rides are conducted week-day afternoons and all day on Sundays during the summer.

The Zoo Railroad is operated daily in the summer, running in the afternoons. Its capacity is 80 passengers, and its tracks, besides circling Monkey Island, pass through Bunny Village and Turtle Town.

Conducted Tours, for groups, may be arranged by calling the zoo director in advance. One of the most important activities in the zoological park is working with the schools. Thousands of children visit the zoo every semester as a part of their class work. Besides Greater Cleveland youngsters, we have many children come to the park in school busses from nearby counties. Whenever requests are made for these conducted tours in sufficient time the zoo not only furnishes a guide but arranges supplementary lectures and the showing of wild animal movies in the Lecture Hall in the main building. The zoo has its own motion picture projector and a regulation projection booth.

Educational Activities also include regularly scheduled broadcasts by Director Reynolds over the Cleveland Public School radio station, WBOE, a medium through which many children have come to know him as "Uncle Fletch." The zoo works in close cooperation, too, with art pupils. There is seldom a day in summer that young people and adults are not seen working at their sketching boards in the zoo grounds.

The Lecture Hall is used for talks on wildlife, and the showing of movies, these programs being scheduled on Sundays in the late fall, winter and early spring. Announcements of these events are posted on the bulletin board at the west end of the main building. Speakers are obtained from the Cleveland Museum of Natural History and other institutions.

The Feeding of the zoo animals is a show in itself, and some of the most interesting specimens are fed publicly so all can see. Diets are carefully worked out in the zoo commissary, and no animal is overfed or underfed. Therefore, it is important that visitors to the zoo do not give "handouts" in the mistaken belief that they are being kind to the animals. The park feeding schedule is as follows:

Cat Animals—lions, tigers, leopards, etc.—3:00 P. M. every day but Monday.

Sea Lions—9:00 A. M. and 4:00 P. M. daily.

Small Animals—raccoons, dingoes, wolves, foxes, etc.—2:30-3:00 P. M. daily.

Penguins—9:00 A. M., 11:30 A. M., and 3:45 P. M. daily.

The cat animals are all fed horse meat, a full-grown lion eating about 12 pounds at each meal. Sea Lions are very particular about the fish they eat, and they have voracious appetites. At the zoo they get butterfish and salt water herring. A day's ration for a Sea Lion is from 12 to 14 pounds of fish.

Penguins are fish eaters, too, but they prefer smelt. They will not eat fish with heavy scales. A penguin will consume about eight smelts a day.



THE ZOO OF THE FUTURE

In the summer of 1946, Cleveland Zoological Park opened its new Waterfowl Sanctuary, a major development that has been described elsewhere in this booklet. The next step is to complete this section of the park, with construction of a Bird House which will be supplemented with flight cages for the birds of prey, a series of pheasant runs, and pastures for such running birds as the ostrich, emu, rhea and cassowary. All of this is of considerable scope, and will give us a bird area unparalleled in any other zoo.

Following completion of the bird house, the zoo development program calls for construction of a large Carnivora House, with moated, outdoor enclosures for lions and tigers. A Reptile House, a Pachyderm House (elephant, rhinoceros, hippopotamus and tapir), an Antelope House, new Bear Pits and a Primate House are next in order, to give Cleveland the most modern zoological park in the world.

* * *

WHAT'S WHAT!

Tell me what would I bring back
If I found a young macaque?

If a jitterbug is not a flea
What could a cara-cara be?

If a gabby femme is quite a talker,
Please tell me, what's a knuckle-walker?

(See Verse Answers Nos. 5-6-7, Page 99)





(Royal Bengal Tiger)

This is me at six weeks. See how I'm snarling and showing off? I felt so safe in my mother's arms, I just had to act porky.



Hello! The photographer happened by at just the right moment, for I'd just stepped out of my shell. My mother was saying, "left, right, left—my, what strong legs!"

(Australian Black Swan)



(Puma)

We were about four weeks old here, and not used to so much attention. The black spots on our coats, so prominent in the picture, faded away entirely when we were five months.



(Red Fox)

Four of a kind, they called us, and we were three weeks old. That's me, second from the left.



I was two weeks old when this was taken and had begun to feel right at home in the world. I liked having everyone admire me and was having fun posing for the photographer. My mother didn't like it, though; in fact she was so mad she spit!

(Guanaco)

(American Bison)



When I was born I weighed 40 pounds and my mother thought I was a beautiful baby. She was very jealous and wouldn't let anyone near me. Even when this picture was taken, and I was a big fellow of six weeks, I could hear her grumbling and fretting as I ate my dinner.



(Lion)

Here we were 2 months old, and our mother wasn't sure you were our friends. Although we still were not weaned, we had begun to acquire a taste for meat as we gnawed on bits of bone from our mother's supper.



**SWAN
SONG**

**THE
END**

AUSTRALIAN BLACK SWAN

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Continued



ANIMALISTICS

QUIZ ANSWERS

1. None of the great apes has any tail at all.
2. Ten toes. Three toes on each of the front feet and two on each of the hind feet.
3. The Sulphur-bottom whale.
4. The wombat is a mammal from Australia and does not fly.
5. The camel.
6. An anteater.
7. A bat.
8. A gorilla, because he has such powerful hands.
9. The shrew, which is about three inches long.
10. No, you would be directed to the Aviary where you would see the giant kingfisher or "laughing jackass," an Australian bird.
11. The Polar Bear has hair on the bottom of its feet to keep it from slipping on the ice.
12. The camel stores excess fat in its hump as a food reserve.
13. The fact that it is used for breathing.
14. An elephant is sometimes called a "hay-burner" because of the large quantities of hay it consumes.
15. The Zebu, or Sacred Cattle, are worshipped by some sects in India.
16. The giraffe has no vocal cords and so is mute.
17. No, this is just one of the many rumors that attach themselves to these children of nature.

VERSE ANSWERS

1. They are not searching for fleas, but are finding a crystalized salty substance that is secreted by the monkey's skin.
2. Eskimos use reindeer milk.
3. A Zebra is white with black stripes.
4. A milk snake could not milk a cow. The legend arises because these snakes are often found near dairy barns.
5. A monkey.
6. A cara-cara is a falcon-like bird.
7. A chimpanzee.

TRUE OR FALSE ANSWERS

1. False. A lioness has no mane and is a plains animal.
2. False. Kodiak bears are so called because they are found on Kodiak Island.
3. True. The Hyena's laugh is weird and penetrating.
4. False. The lemur is small and moves silently. It eats insects, fruit, raw eggs.

Notes on my trip to the Zoo

1946

MONKEY ISLAND



ANIMAL HOUSE



Carnivora
Reptiles
Birds
Elephant

CIRCUS

PONY TRACK

PHEASANT
FOX ETC.

OSTRICH,
EMU

CRANES,
STORKS



REFRESHMENT
STANDS

SEA LION
POOL



HOOFED
ANIMALS

BIRDS OF
PREY

Swans
Ducks
Geese
Pelicans
ETC.



WATER FOWL
SANCTUARY



Lin Hansen

