



# WILD WORLD OF ANIMALS

ZOOLOGICAL SOCIETY OF SAN DIEGO



Join us here...

...to contemplate the wild animals  
of the world and nature's wilderness.

...to strengthen a commitment to wildlife  
conservation throughout the world.

...and to strive toward Man's own survival  
through the preservation of nature.

*San Diego Wild Animal Park...1972*

# San Diego WILD ANIMAL PARK

## WILD WORLD OF ANIMALS

PHOTOGRAPHS BY RON GARRISON AND F. DON SCHMIDT  
TEXT BY ROBERT GRAY

HANDY GUIDE MAPS ON PAGES 2, 3 AND CENTER SPREAD

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### VIEWING OF WILD ANIMALS



Opposite, the Greater Kudu, an African antelope. Above, the Galapagos Tortoise. This 500-pound reptile is the longest lived animal on earth with a lifespan which exceeds one hundred years. It is found only on the Galapagos Islands off the west coast of South America. Upper right, the Laysan Teal. A duck which lives on a small island in the Hawaiian chain. It came dangerously close to extinction after whalers brought rabbits to the island and they ate the ground cover. Lower right, Przewalski's Horse. An ancestor of domestic horses. It is a native of Mongolia, but probably no longer exists in the wild.



# A New Experience

IN OPEN SPACE VIEWING OF WILD ANIMALS

The San Diego Wild Animal Park is an 1800 acre reserve where many species of wild animals can be seen in surroundings much like those of their native homelands. The Park offers superb family entertainment. But it is more than entertainment, for important scientific research to help save endangered species is conducted at the Park. Many of the species on exhibit are disappearing in the wild. If they are to be saved, we must learn more about their behavior, specifically, reproductive behavior. At the Wild Animal Park's research center, scientists are studying the problems of captive breeding. The Zoological Society of San Diego has a long history in conservation. Since its founding, the Society has given high priority to the conservation of animals and the wilderness places in which they live. The Society was founded in 1916 and its famous Zoo in 1922, using animals exhibited at the Pan American Exposition. From that modest beginning, the Society has developed the Zoo into one of the world's finest. And during all the years of growth, special attention has been paid to those species labelled "Endangered." The Zoo has had considerable success breeding the world's longest lived animal, the Galapagos Tortoise. In cooperation with other institutions, the Zoo has worked to save animals such as the Laysan Teal, a small duck found only on one island in the Hawaiian chain. Currently, the Zoo is breeding the Przewalski's Horse which is almost extinct in the wild. Stud books for the Anoa and Scimitar-horned Oryx are maintained by the Zoo. So, establishment of the Wild Animal Park and its research center was a logical step in the Zoological Society's conservation work. Through the cooperation of the Society and the citizens of San Diego, the park opened in May, 1972, the realization of a ten-year effort.



Opposite, the Greater Kudu, an African antelope. Above, the Galapagos Tortoise. This 500-pound reptile is the longest lived animal on earth with a lifespan which exceeds one hundred years. It is found only on the Galapagos Islands off the west coast of South America. Upper right, the Laysan Teal. A duck which lives on a small island in the Hawaiian chain. It came dangerously close to extinction after whalers brought rabbits to the island and they ate the ground cover. Lower right, Przewalski's Horse. An ancestor of domestic horses. It is a native of Mongolia, but probably no longer exists in the wild.





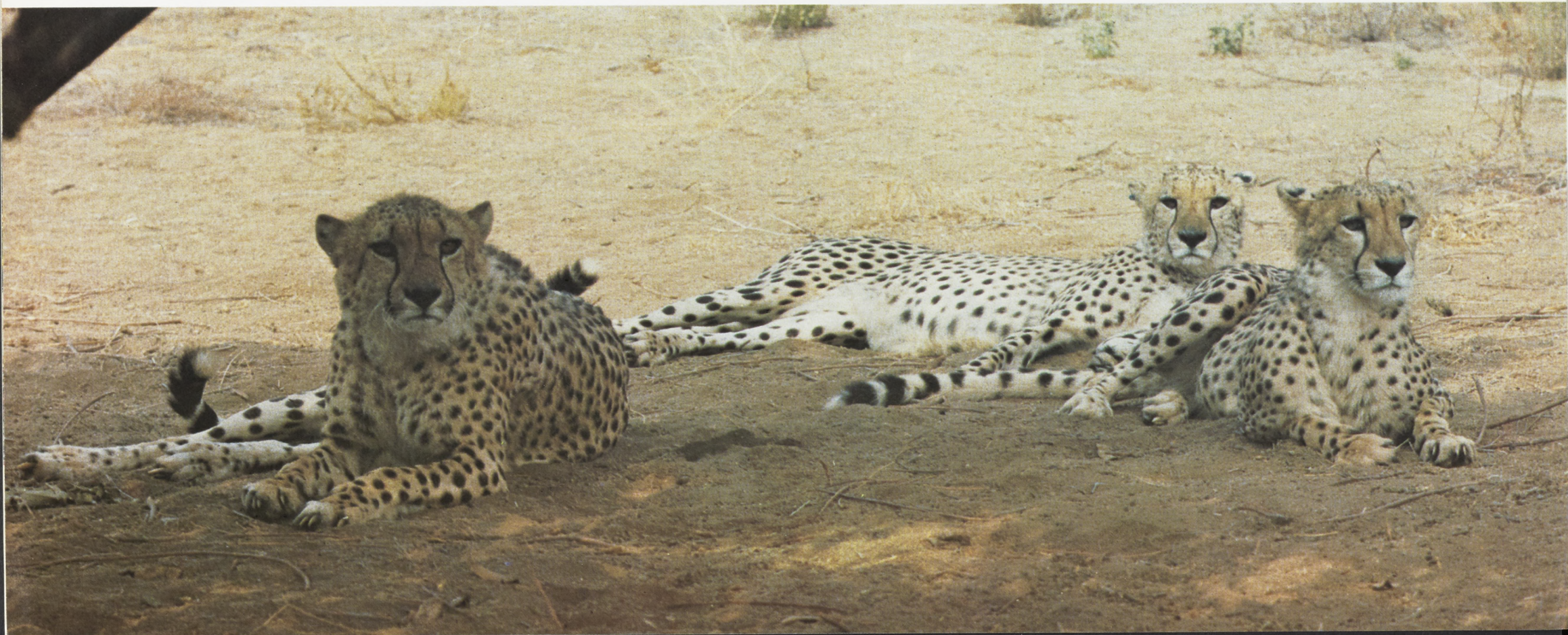
## The Setting

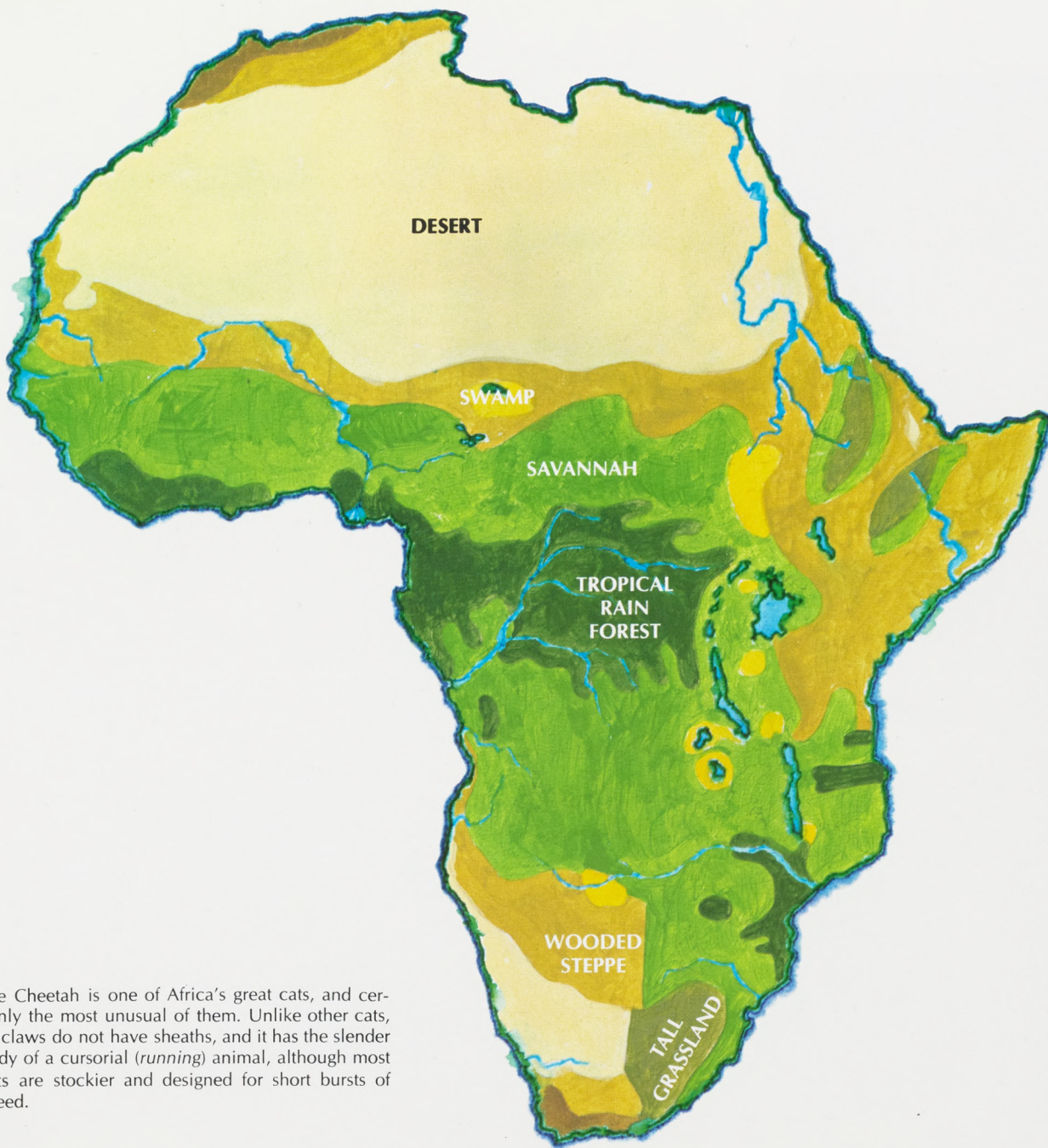
The San Diego Wild Animal Park is located in San Pasqual Valley, thirty miles north of the Zoo in Balboa Park, yet still inside the city limits. The valley is farmland primarily. Santa Ysabel creek, in the valley's bottomland, is a typical Southern Californian watercourse—bone-dry for most of the year. But in the rainy season, the stream bed can fill. In former years, it often overflowed. Before the city's utility department built Sutherland Dam fifteen miles upstream, bridges were ripped away, farms were flooded and, much to the delight of the children, the old, one-room San Pasqual school was isolated and closed for days at a time. The hills which flank the valley are part of the Coast Range, a chain of mountains which extends the length of the state. Along its lower reaches, the Coast Range is covered by brush that is pierced by granitic escarpments and divided by dry stream beds. This is chaparral country. Chaparral is a word derived from the Spanish, *chaparro*, the name for scrub oak which makes up much of the ground cover. Spanish cowboys—the *vaqueros*—devised tough leather leggings to protect themselves from the scrub oak's thorns. These leggings became known as chaps. Despite the extensive changes which man has brought to California, chaparral still covers several million acres and



# Africa

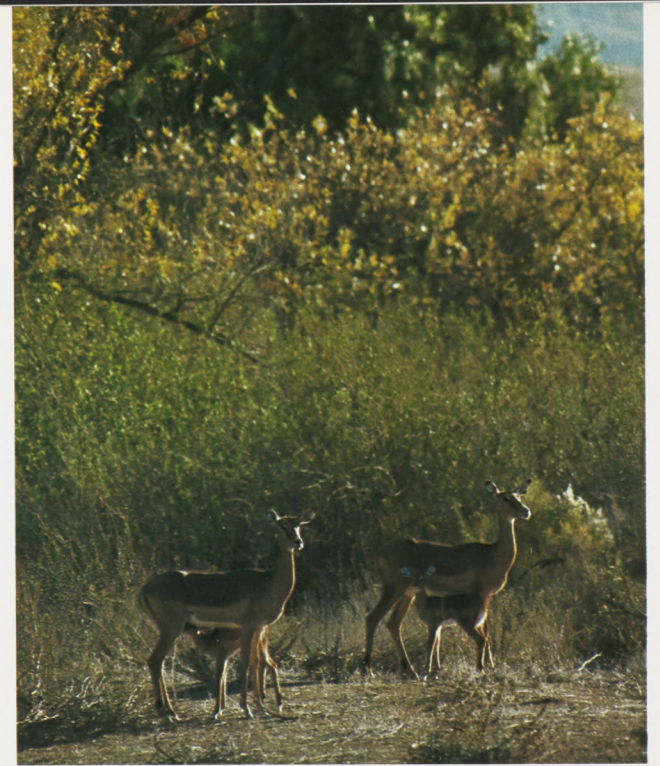
Africa is the last place where wild animals can be seen in large numbers. Geologically, it is a very ancient land, a great plateau which has stayed more or less the same for the past six hundred million years. Under these stable conditions, life in Africa has evolved to fit into countless ecological niches and perfected its adaption to them. Thousands of species have appeared, developed, and worn out their evolutionary welcome. For even in Africa, geologically stable as it is, the physical environment changes, slowly to be sure, but it still changes. A drop in the mean temperature of one degree or so forces great adaptive changes on plant and animal. Those who were overspecialized, disappeared. Throughout the world, far more species have slipped into oblivion than are now alive. Nature is





The Cheetah is one of Africa's great cats, and certainly the most unusual of them. Unlike other cats, its claws do not have sheaths, and it has the slender body of a cursorial (*running*) animal, although most cats are stockier and designed for short bursts of speed.

Impala fawns nursing.



an exacting teacher who doesn't look kindly on mistakes, and overspecialization is a mistake. Those species who survived present a dramatic picture of just how complex ecological relationships are. Nowhere is this seen better than in Africa. Many people assume that all of Africa's animals live in the jungle, and it certainly is true that the jungle—or rain forest, as it is properly called—supports a wide variety of wildlife. But the majority of animals—the game herds, giraffes, rhinoceros, hippos, leopards, even the so-called “King of the Jungle,” the lion—do not, and cannot live there. The rain forest simply couldn't support them. These animals live on the open plains, the savannahs. The savannah is grassland with a light growth of trees. It is the dominant biome of Africa. There are others, of course—tropical rain forest and desert to name just two—and each supports its own kind of animals. But only on the savannah with its sunshine, open spaces and grass can one find the game herds and the animals which live among them. The basic commodity which makes such a wealth of life possible is the savannah's grass. This is a community of different plants, each of which has evolved to fit one of the many ecological niches on the savannah. The savannah is a place of relatively poor soil and little rain. During the dry season, of which there are two per year, the plants die back and are eaten down to the roots. Huge numbers of animals—wild and domestic—feed on the grass and tramp it into the ground. Fires periodically

The giraffe, *left*, is the tallest animal in the world. It can grow to eighteen feet, although the average height is much shorter. Giraffes have extremely keen vision, and this, coupled with their height, makes them difficult to surprise. They live throughout East and southern Africa and are associated with growths of acacia, the leaves of which provide their favorite food. *Right*, Waterbuck prodding a White Rhinoceros. Despite the rhino's size, it is a gentle, passive animal most of the time.



race across the plains. Some are caused by lightning; most are set by native herdsmen to keep down the bushes and stimulate the growth of still more grass. Grasses unable to withstand such a combination of pressures long since disappeared. Those which remain provide a rich source of nutrition for the savannah's animals. Just as the presence of these animals have helped to determine the kinds of grasses which grow on the savannah, so the plants have exerted an influence on the animals. Teeth are a case in point. What an animal eats determines the kinds of teeth it will have. If grass is the basic food, the teeth must harvest it, then grind it into a form which can be swallowed. So it is not surprising to find the savannah's grazers with well developed incisors for cutting the grass, and large, flat molars for grinding it. Some species, such as the zebras, have incisors on both the upper and lower jaws. Others, certain antelope and sheep for instance, have lower incisors only. The grinding surfaces on the molars of many herbivores—vegetation eaters—is made up of alter-

nately hard and soft vertically oriented layers. The softer material wears away first, providing ridges which make the grinding process more efficient. Predatory mammals—those which eat meat—have large, sharp canine teeth—the so-called eye teeth—for stabbing weapons that hold and kill prey. To tear the meat apart, the predators have cusped molars. Incisors on these animals are relatively small compared with those on herbivores. Among carnivorous lizards, the teeth are recurved, that is, they point back in the mouth, toward the lizard's throat. As the animal takes bites from its victim, the meat is forced by the teeth farther into the lizard's mouth. Most herbivorous lizards, such as iguanas have no such fearsome array of teeth. They crush plants between their jaws. Interestingly, man and some of the other primates who are omnivorous, that is, who eat both vegetation and meat, have teeth which reflect this all-around diet. They are compromises, neither the large incisors, massive flat molars of the true herbivores, nor the small incisors, large canines of the carnivores.



Uganda Kob *left*. One of the more than sixty species of African antelope, these animals live in East Africa where they are found near water. Only the males have horns. Impala *right*. One of the most attractive and best known of African antelope. They are famous for their incredible ability to jump—often spanning thirty feet and reaching over ten feet off the ground.

### The Savannah — Who Lives There?

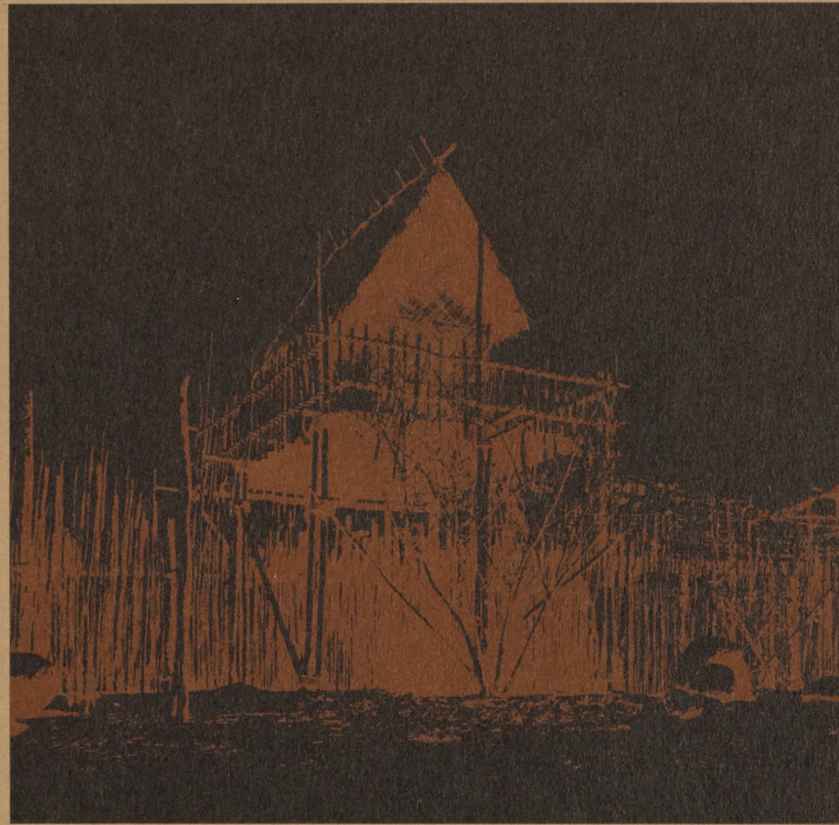
Of all savannah animals, the antelope are most numerous and diverse. They are the basic herbivores, and each savannah or grassland biome around the world has a comparable type of animal. In Eurasia and America, deer fill the same niches. In Australia, kangaroos are the “antelope.” African antelope range in size from the one-foot-tall Zanzibar antelope which weighs less than five pounds, to the 1,500 pound eland which stands six feet at the shoulders. On some species of antelope, such as the sable, oryx, addax, topi and gnu both sexes have horns. On others, such as the impala, lechwe and klipspringer, horns are worn only by males. Most antelope are creatures of the open savannah where food is plentiful and predators can be seen. For the most part, they live in herds or small harem groups.

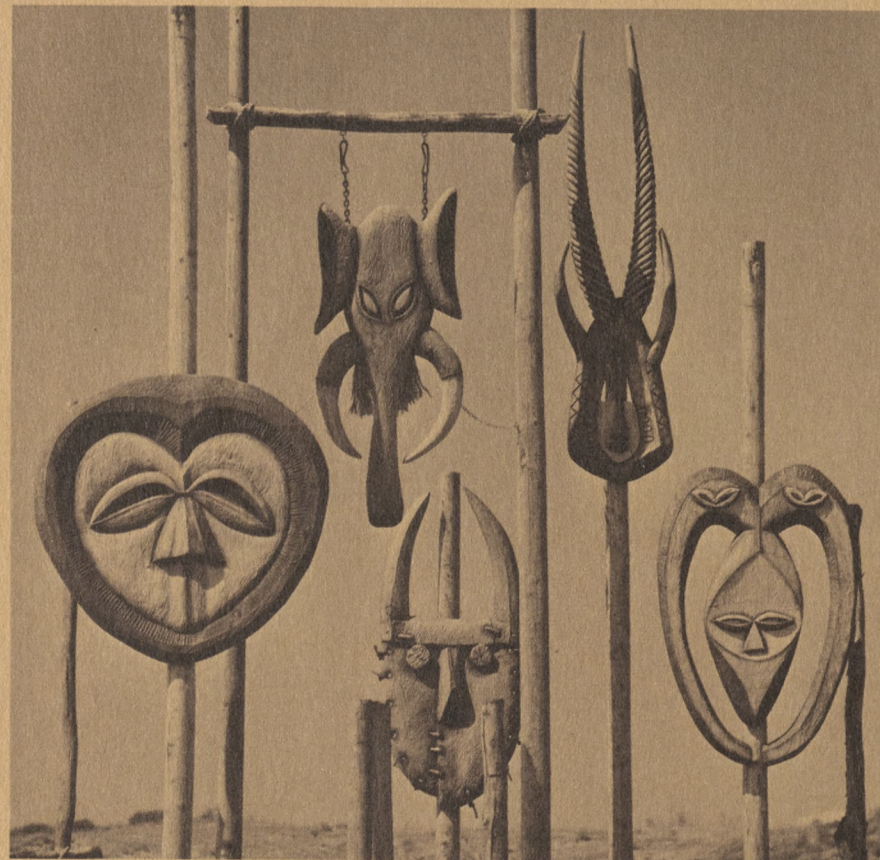
The most numerous African antelope are the white-bearded gnu, also called the wildebeest. Some antelope live in biomes other than the savannah. One of these is the lechwe, a creature of the swamps. The lechwe feeds on aquatic plants and grasses. It is fond of swimming and wading and it travels through the water in a series of water throwing leaps. As an adaptation to its wet habitat, the lechwe’s hooves are elongated to supply support on the mud. At the opposite extreme in habitat choice is the tiny klipspringer, a fifteen to twenty-three inch tall antelope who lives on the dry, rocky hillsides of the savannah’s watercourses. The klipspringer has a coat of coarse fur which protects its body from bumps and scrapes on rocks. Its hooves are pointed, and the animal is so sure-footed that it



*Top*, Male Black, or Hook-lipped, Rhino. The Secretary Bird, *lower left*, is a relative of eagles and hawks, and is found throughout much of East and South Africa. The Fringe-Eared Oryx, *lower right*, is commonly found in East Africa.

# Nairobi Village





## Guide Map

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**Nairobi Village** is "Port of Entry" for the San Diego Wild Animal Park. It occupies about seventeen of the Park's 1800 acres and is a complex that includes shops, the Park's administrative headquarters, animal exhibits, special attractions and the embarkation and debarkation points for the monorail, the Wgasa Bush Line. The Village was initially designed in a style reminiscent of East African architecture. Here in Nairobi, California you will find places to eat, to shop, to view more distant animals or just loaf. Among the points of interest in the Village, the following seem to hold special appeal for visitors:

#### WGASA BUSH LINE

**9. Simba Station, Embarkation Point. 26. Terminus, Debarkation Point.** A trip on the Wgasa Bush Line is one of the high points of a visit to the Park. Occupying the better part of an hour, the trip is a five-mile "safari" through Eastern, Northern and Southern Africa, Asian Swamps and Plains, riding along in silent, electric monorail cars. Visitors pass a large pride of African lions, lounging in a canyon enclosure, and African and Asian elephants each in their own large compounds. The major animal enclosures—averaging one hundred acres or more in size—enable the animals to live almost free, as they would in their homelands. Parts of the high veldt in Eastern Africa are much like the Park site, and people who have visited Africa say that there is just one main difference in animal viewing—they can see far better more species at the Park than in Africa and obviously in a shorter time. Each of the Bush Line trains is operated by an experienced guide who points out the animals as the train moves along. Frequent stops are made for better viewing and picture taking.

#### PLACES FOR STROLLING, EATING OR JUST ENJOYING

**1. Entry Rondavel.** The circular, domed Entry Rondavel at the Park is patterned after a unique African structure—the tomb of a Uganda king. It contains ticket booths, restrooms and an information center. **11. Thorn Tree Terrace.** A cafeteria which has a varied menu for dining on the shaded terrace.

**17. Animal Care Center.** Many large enclosed stalls, some plate-glass fronted, provide excellent viewing of baby animals. Also, visitors can watch food being prepared for animals housed in the Village and see first aid treatment.

**18. Lagoon.** This 1,500,000 gallon, man-made body of water contains many exotic water fowl. In winter, it is expected to play host to large numbers of migratory water fowl.

**23. Viewpoint.** From this vantage point, you can look out on the plains of "Eastern Africa" and observe many species of animals, including Black and northern race White Rhinos.

**24. Picnic Area.** Another excellent place to watch the animals.

**25. Elephant Wash.** In their southeastern Asian homelands, work elephants are bathed in rivers daily and scrubbed by the mahouts. Here in the Park, some of the young Asian elephants are bathed in a large lagoon, providing a delightful spectacle, especially for photographers.

**30. Mombasa Cooker.** A snack bar and dining terrace overlooking the main lagoon.

**36. Fishing Camp.** On many African rivers, natives build primitive structures to support fish traps. Our camp was created from native materials and built over a man-made 1,200-gallon-a-minute cataract into the lagoon.

**39. Clock Tower.** If there's any doubt about where to meet friends or members of your family, make it at the clock tower. It can be seen throughout the Village.



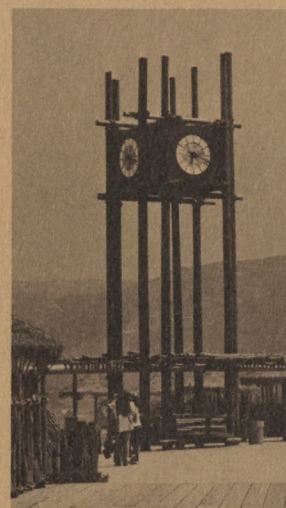
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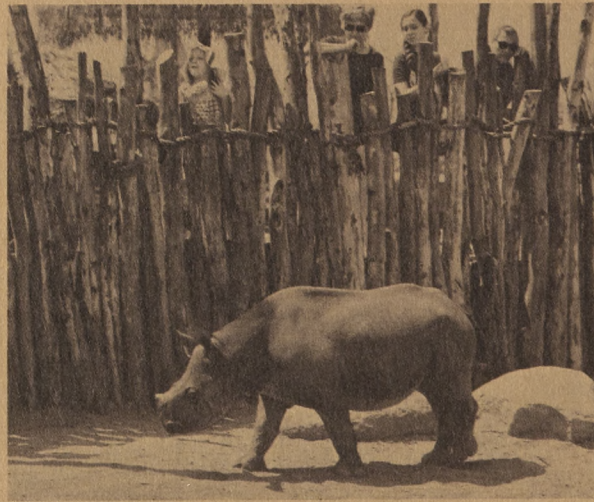


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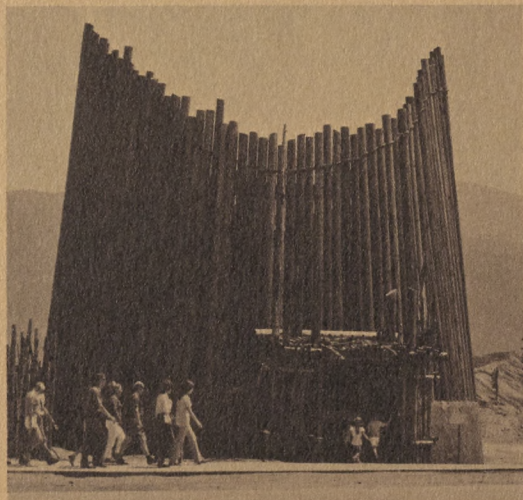
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## ANIMAL EXHIBITS

There are several animal species on exhibit in the Village which, because of habits and size, are best seen close up.

**3. Aviary.** More than 300 birds, representing 32 species, are housed in this enormous, beautifully planted, cable-suspended wire mesh free flight cage.

**4. The Lesser Flamingos** seen here nest only in the soda lakes of the Great Rift Valley of East Africa.

**6. Toucan.** These tropical American birds with enormous bills appear out of balance, encumbered with such a beak. But the toucan's bill is a masterpiece of structural engineering, honeycombed to be amazingly lightweight and an efficient fruit-gathering tool. Toucans, of which there are 37 species, range from southern Mexico southward to Paraguay and northern Argentina.

**10. Spider Monkey.** These agile monkeys are one of the many American species that have prehensile tails. Monkeys from the Old World do not have this extraordinary appendage.

**15. Pelican.** The pelican's pouch is a dramatic example of adaptation. Through eons of evolutionary development, it has become a "net" in which the pelican traps fish. He holds his prey in the pouch long enough for water to drain away, then with a toss of his head, swallows his catch.

**16. The Galapagos Tortoise** is the world's longest-lived animal. It is known to live in excess of one hundred years.

**19. Black Rhinoceros.** There are five species of rhinos still living. Three of them are found in Asia and exist on the very cliff edge of extinction. Of the two African species—the White and Black—the Black has a far larger population and lives in a much larger range.

**20. Ring-tailed Lemurs** are one of several species of these primates, found only on the island of Madagascar. Lemurs range in size from a tiny, mouse-like creature to an animal the size of a terrier.

**22. Kraal.** Here, in the intimacy of this contact area, children can experience togetherness with many kinds of animals in a one-to-one relationship.

**27. Green Iguanas.** This herbivorous lizard from tropical America is quite harmless despite its ferocious appearance. The only damage it might inflict would be a nip or a scratch.

**29. Greater Flamingos** are the most widely distributed of all flamingo species. They are found in East Africa, along the Mediterranean eastward into India and Ceylon.

**31. The Komodo Dragon** is the largest of all carnivorous monitors, sometimes measuring eight to ten feet in length and weighing up to three hundred pounds. It is found on three small islands in the Indonesian archipelago. The Dragon, although strongly attracted to decaying carrion, can run down wild pigs or deer if it chooses fresh meat.

**34. The Lowland Gorilla** has been called a "Gentle Giant." And despite its awesome appearance, this is truly one of nature's gentle creatures. It is a vegetarian and lives in tropical West Africa.

**40. Desert Lizards.** Animals which live in the hot, arid deserts of the world, have adapted in special ways to withstand their water free environment. For the most part, they require very little water. Many of them, the lizards included, get water from the food they eat. Many desert animals retreat in the heat of day and hole up under a bush, in the crevices of rocks, or in underground burrows. Still others estivate, which is the summer equivalent of winter's hibernation—a slowing of the body process almost to the point of death. The desert lizard, however, is up and about in mid-day, skittering across the sand from the shade of one bush to the safety of an overhanging rock, to a tree, and maybe back to the starting point.



San Diego **WILD ANIMAL PARK**



Behind the scenes at San Diego Wild Animal Park. Above, unloading a White Rhino. Center left, uncrating an antelope. Center right, medicating an injured zebra. Below, the Jerene Appleby Harnish Wild Animal Station for Medical Care and Research. Opposite, White Rhinos at sunset.

lands are drained and filled; and rivers and lakes are polluted. Wild animals took millions of years to adapt into their separate niches; they cannot change to fit new ones as rapidly as man destroys the old. So they die. Each nine months, a species of plant or animal becomes extinct. So what? What difference does it make if every wolf, lion, deer, antelope, alligator, and whatever, dies? What have we to do with them anymore? The old days are gone. We no longer need them as we did those thousands of years ago. That is true. We do not need the wild animals as we once did. But that does not mean that we do not need them at all. There are many reasons that wild animals deserve to live and reproduce their kind. Some, as seen from the human standpoint, are admittedly selfish. There is much we can learn from them that will contribute to our own welfare. Already, many medical discoveries have been made, thanks, in large part, to studies conducted on wild animals. And now, through the relatively new science of ethology—the study of behavior—we are beginning to learn how animals live together in their natural environments. The scientists making these studies think that there could be applications to the way in which we humans might better our own relationships. Another selfish reason for saving wild animals, especially some of the large, African antelope, is that they could eventually supply a reliable source of protein for humans. Domestic cattle fare poorly on the semi-arid savannahs. But the native antelope, feeding on the very same grass, are sleek and fat. Perhaps these animals could be substituted for the cattle some day. Over and above these human-centered needs, wild animals, and the wild places they need in order to live, have the right to exist simply because they do exist. They have been our neighbors on this planet for two million years. They predate our relatively late arrival. And they are parts of the fabric which we call life. Pulling out any one of the parts can place the entire fabric in danger, for, in nature, all things are related to many other things. Mankind needs animals in the wilderness as living reminders of his past. Despite his technology and civilization, he is still very much a part of earth's natural processes. Wild animals can remind him of this. Even if he never sees them in the wilderness, there is great comfort in knowing that they are out there. We must set aside areas where they can live. We must stop the senseless killings. We must learn more about the animals' habits in order to protect them. And we must rediscover those ancient attitudes, the ones we held in the days when we followed the game herds north in spring. They are not dead. Somewhere under the overburden of modern, twentieth century concerns, they are still very much a part of us, needing only the freedom to live.

