★★ IT'S ALL ANIMALS!

ANIMALS OF THE

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Animals of the Serengeti

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Chapter I: The Serengeti Ecosystem



The lion was six feet long from its head to its tail. It weighed 400 pounds. It was hunting with another lion.

The lions were hunting on the grasslands. They saw a herd of African buffalo grazing. Some of the buffalo weighed 1,200 pounds.

One buffalo was not very close to the others. The lions began to chase it.

One lion jumped on the buffalo's back. The other ran to the buffalo's head. It bit the animal's nose and mouth so it couldn't breathe.

The buffalo flung up its back feet. The lion on its back flew off. The buffalo hit the other lion with its hard horns. Then it ran.

Other buffaloes saw the fight. They swung their horns and ran at the lions again and again.

At last, the lions gave up. There were too many buffaloes for them.

The hurt buffalo was bleeding, but the cuts were not deep. It was going to be OK this time.

Animals and Ecosystems

The lion is an **apex predator**. It's at the top of the food chain. It hunts other animals—but other animals do not hunt it. That's why people call the lion "King of the Beasts."

The lion and the African buffalo live in the Serengeti (sayr•en•GET•ee). They are part of the Serengeti **ecosystem** (EE•koh•sih•stem).

Ecosystems are made up of both living and nonliving things. Plants, animals, and soil are part of an ecosystem. So are the sun, water, and weather. Energy is also part of an ecosystem.

All of the things in an ecosystem are connected. They are near each other. They interact with each other. They have an effect on each other. They need each other.

There are many kinds of ecosystems. There are *forests* and *deserts*. There are *tundras*, where trees don't grow. There are *freshwater* and *saltwater* ecosystems. There are *grasslands*.

A Grassland Ecosystem

Grasslands are large, open areas covered

in grasses. Grasslands are mostly flat, but there are also rolling grasslands. These have small hills.

Grasslands make up about one-fifth of Earth. That's a lot of land! There are grasslands on every continent but Antarctica. They cover more than half the continent of Africa.

The Serengeti is mostly in the country of Tanzania (tan•zuh•NEE•uh). This country is in eastern Africa. A small part of the Serengeti is in Kenya. Kenya is north of Tanzania. The Serengeti is huge. It covers 12,000 square miles.

The Serengeti has grasslands with no trees. It also has **savannas** (suh•VAN•nuzz). Savannas are grasslands with trees and shrubs scattered here and there.

Savannas are warm all year. They have a rainy season and a dry season. During the rainy season, there can be 15 to 25 inches of rain. It's hot and humid (HYOO•mid) then.

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During the dry season, there is very little rain. The grasses dry up.



Rain falls on the Serengeti savanna.

Animals of the Grasslands

Large herds of wild animals graze on the Serengeti grasslands. There are elephants and giraffes (jih•RAFFS). There are wildebeests (WIL•duh•beests) and zebras. There are predators, too. The lion in the photo on page 1 lives on the grasslands. It is a predator. It hunts other animals. The African buffalo is its **prey**. Prey means the animals that predators hunt and eat.

The buffalo eats grass and other plants. The lion eats the buffalo and other animals. The lion is higher on the food chain.

All food chains start with the sun. The sun helps plants grow. The living parts of food chains start with plants. An animal eats a plant. A second animal eats the first animal. A third animal eats the second animal. A food chain follows a path as one animal after another finds food.

A **food web** is made up of many food chains. Food webs show how food chains interact with each other. Food webs show the transfer of food energy in an ecosystem.

In the next few chapters, you'll learn more about the Serengeti ecosystem.



Ostriches are part of the Serengeti ecosystem.

Keep reading! You'll find surprising

answers to questions like these.

What animals travel more than 1,000 miles every year?

What big cat drags its prey up into trees? What savanna animal is related to whales?

Chapter 2: The Great Migration



Why are all these animals on the Serengeti savanna? Where are they going?

The answer is easy. They're going where they go every year: on the "Great Migration."

When animals move from one place to

another, it's called a **migration** (my•GRAY• shun). All kinds of animals migrate. Migration is usually tied to the seasons.

Animals of the Great Migration

The Great Migration is the largest land migration in the world. Every year, more than two million animals go on this migration. These animals travel more than 1,000 miles every year. They go from Tanzania to Kenya and back again.

Here's how the migration works. The wet season runs from November until May. The rains keep the grasslands green. The animals graze in the southeastern Serengeti.

The rains stop for a while in late January and February. That's when the wildebeests give birth to their calves.

The rains come back in March. By May, the rains are over. The grasslands start to dry out. The animals migrate northwest on the savanna. They go where the grass is taller. It stays green longer. There is water, too.

In June and July, they cross two rivers. Some animals drown. The rivers have crocodiles that eat many of them as they cross. Lions wait on the other side.



Wildebeests and zebras cross a river.

The herds keep going. They get to the rich grasslands of Kenya in late July and August.

They stay there until late October. Then they start moving again. Soon the rains will fall again on the southeastern Serengeti. The animals are back where they started as new grass pushes up through the ground.

The Great Migration isn't easy. Every year, about 250,000 wildebeests die on the trip. Predators kill many of them. Some die from hunger and thirst. Others get too tired to finish the trip.

Let's take a closer look at the animals that make this migration.

Wildebeests

More wildebeests make the Great Migration than any other animal. They are big and strong. They can be eight feet long and weigh up to 600 pounds. They have sharp, curved horns.

Wildebeests are **herbivores** (UR•bih•vorz). Herbivores are animals that eat only plants. You can see why wildebeests need grasslands!

Wildebeests have useful **adaptations** (a•dap•TAY•shuns). Adaptations are traits that help animals survive better in their ecosystems. Wildebeests have wide muzzles and flat teeth. Their lips are wide and move easily. These adaptations help them take bites of short grass and grind it up to eat.

They have other adaptations, too. Their horns help them defend themselves. Their nostrils have flaps. The flaps keep the dust out of their noses. This is useful when thousands of migrating animals are running together.

Wildebeests' legs give them speed. They can run up to 40 miles an hour in short bursts.

Wildebeest calves have an important adaptation. They can stand up five minutes after they're born. They can run with their mothers 15 minutes later. This helps when predators are near.

Zebras

Zebras and wildebeests migrate together. They are both herbivores, and they both eat grass. You might think they would fight for food. But they don't. Zebras and wildebeests eat different parts of the same grasses!

Zebras can see very well. Wildebeests can hear very well. When predators are near, both animals give warnings. Wildebeests use a loud groaning call. Zebras bark or whinny loudly like horses do.

Zebras are related to horses. They look like horses with stripes. Every one has a different pattern of stripes. No two zebras have the same markings.

Zebras live in family groups. Each group is made up of a male, several females, and their foals. Foals can stand and run a few hours after they are born.

Family groups join together to form herds.

There can be thousands in one herd. Herds graze together. They migrate together.

Gazelles

You can see another animal on the Great Migration. It's the gazelle (guh•ZELL). Gazelles are much smaller than wildebeests and zebras. There are several kinds. The ones in the picture are called Thomson's (TOM•suns) gazelles.



Thomson's gazelles graze on the Serengeti.

Like zebras and wildebeests, gazelles live in herds. They follow the zebras and wildebeests on the grasslands. The larger animals "mow" the tall grass when they trample and graze on it. The gazelles then eat the shorter grasses that are left.

Gazelles are small. They live on wide-open grasslands. They always need to be on the lookout for predators. They have adaptations to protect themselves. They only sleep for five minutes at a time. They sleep for a total of just one hour every day!

Gazelles are fast. They can run 60 miles an hour in short bursts. They run in a zigzag pattern. This makes it much harder for predators to catch them.

All of the animals on the Great Migration are prey to predators. In the next chapter, you'll meet some of those predators.

Chapter 3: Predators of the Serengeti



Cheetahs are **mammals**. Mammals are animals with a backbone. They are warmblooded. This means their bodies make their own heat and stay at the same temperature. Most mammals have some hair on their bodies, too. The young are fed milk from the mother.

The cheetah is the fastest land mammal in the world. It takes three seconds for it to go from standing still to running 65 miles an hour! It can run up to 75 miles an hour.

Why does this cat need to be so fast? One reason is that its favorite meal also runs fast. Its favorite meal is a gazelle.

Cheetahs are not the only animals that hunt gazelles. Lions do, too. So do leopards (LEH•purds). These predators are three of the "big cats" of the Serengeti.

The Big Cats

In chapter 1, you saw how lions hunt African buffaloes. Lions are bigger than cheetahs and leopards. They hunt the biggest animals on the Serengeti. They also hunt smaller animals like gazelles.

Lions live in groups called prides. Most

prides have up to three males, a dozen females, and their young.

Female lions do most of the hunting. They often hunt at night.

Lions hunt in two different ways. Sometimes, they stalk their prey. They hide from their prey as they follow it. If the prey sees the lions, the lions sit still. They stare into the air, acting as if they're not interested in the prey. As long as the prey can see the lions, the prey is usually safe. But if the prey doesn't see them, they attack.

The other way lions hunt is to attack their prey right away.

Lions also have another way of getting food. They steal it from smaller predators, like cheetahs. If cheetahs know lions are near, they drag their catch away to hide it.

Cheetahs hunt during the day. They catch their prey almost 60 percent of the time. Why are they so good at hunting? They have useful adaptations. Their hearts and lungs are bigger than other animals their size. This lets them take in lots of air. Then they can run very fast in short bursts. They have long, strong legs. All of these things help them run fast.

Cheetahs have another adaptation. Their long tails are like the rudder on a boat. They help the cats "steer" as they go after prey with quick twists and turns.

Leopards also live on the Serengeti. People sometimes get leopards and cheetahs mixed up. They both have spots. They both eat gazelles and other animals. But they are different.

Leopards are **nocturnal**. They hunt at night. They are stronger than cheetahs, and they are not as thin.

Leopards and cheetahs don't hunt the same way. Cheetahs use their speed to run after prey and tackle it. Leopards hide from their prey and then pounce on it.

Leopards can climb trees. They drag their prey up into trees. That way, other predators can't steal their food.

During the day, leopards rest in thick brush or in trees. It's hard to see them. It's easier to see cheetahs. They sit on termite mounds or small hills. They scan the area, looking for prey.

Crocodiles

Remember the crocodiles in chapter 2? They kill wildebeests and zebras crossing the rivers on the Great Migration.

These crocodiles are the apex predators of the water. They are the biggest freshwater predators in Africa. The biggest ones can grow 20 feet long and weigh 1,500 pounds.

Crocodiles have strong jaws and many sharp teeth. Their bite has eight times the force of the bite of a great white shark!



A crocodile tries to catch a migrating wildebeest.

Crocodiles have thick, scaly skin. They have short legs. Their feet are webbed and have claws. This helps them move both on land and in the water. Their tails are long and act like the rudder on a boat.

Crocodiles float when they're in the water. Their eyes, ears, and nostrils are above the water. That way, they can see, hear, breathe, and smell. The rest of them is under the water. That makes them hard for prey to see.

To catch prey, crocodiles float quietly or stay still at the edge of the water. They wait until prey comes to drink water or cross the river. Then they grab the animal suddenly. If the animal is small, crocodiles hold it underwater to drown it. Then they eat it. With a large animal, they bite it and then spin wildly to tear it apart. Sometimes, other crocodiles help tear apart large prey. Then they all eat together.

Crocodiles don't always eat all of the prey. So other animals eat the prey, too. Fish eat the dead animals. Even hippos sometimes eat them. **Scavengers** (SKA•venj•erz) eat them. Scavengers are animals that eat dead things other animals have killed.

Hyenas (hye•EE•nuhs), jackals, and vultures are a few of the scavengers on the Serengeti.

Hyenas and Jackals

Hyenas and jackals are predators. They hunt and kill their own food. But they're scavengers, too.



Spotted hyenas and jackals scavenge a meal.

The spotted hyenas on the Serengeti kill more than 90 percent of their own food. They hunt the same prey on the same land as lions do. Lions and hyenas steal each other's food. Hyenas hunt and scavenge in groups. One group can eat a zebra in less than half an hour. They eat all of their prey—even the bones!

Hyenas will often show up when a lion is eating a meal. When the big cat finishes what it wants, they move in to clean up the rest. Sometimes, a large group of hyenas will bully a lion into leaving.

Spotted hyenas are sometimes called "laughing hyenas." But they don't laugh for fun. Each one has a different "laugh" that tells the others who's in charge.

People say that hyenas laugh and jackals cackle. Jackals are noisy. They yelp, growl, and whine.

Jackals and hyenas often scavenge near one another. Hyenas are much bigger. They often chase jackals away from a kill. Jackals are very fast. They steal food and run. They will even steal scraps from a lion.

Key Words

adaptation 12
apex predator 2
biodiversity 38
domestic
ecosystem 3
endangered 35
extinct
food web 6
habitat
herbivore 11
mammal 16
migration 9
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