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*\* Note: Throughout this zoo guide, animals are listed alphabetically. However, the animals in these sections have been grouped together for easy access since most zoos have grouped many, if not all, of these animals in the same location. The animals within these sections are also listed alphabetically.*



# FOREWORD

Zoos are wonderful collections of many of the world's most exotic, beautiful, and unique creatures God created, but so often zoos teach the evolutionary message of millions of years and survival of the fittest. As we take our students or children to the zoo, we must be prepared to confront this evolutionary teaching with the truths of the Bible. We should be equipped with a biblical understanding of God's Word. This Zoo Guide is designed to equip you and your children or students with the biblical knowledge necessary to combat the message of these zoos.

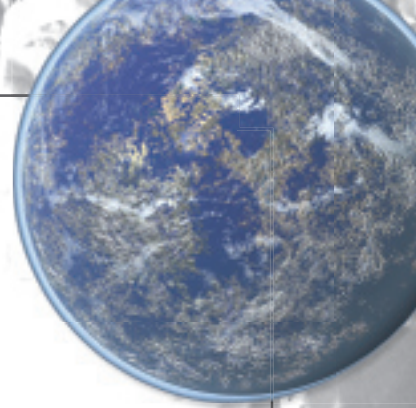
The introductory pages of the Zoo Guide provide foundational information to help you better understand the beginning of our world and the effects of the Fall on all of creation. It also informs you on such topics as evolution, natural selection, animal kinds, and extinction from a biblical perspective. Each animal information page includes the animal's scientific classification, weight, size, diet, habitat and range information, features, fun facts, and design elements. These pages direct our attention to the Creator God and His creativity and handiwork in His creation.

This Zoo Guide provides all ages with Bible-based information that refutes the evolutionary interpretation you see at the zoo. Animals we see at the zoo are amazing testaments to God's handiwork. The Zoo Guide provides the correct perspective to these amazing creatures.

## SPECIAL THANKS

- Gary and Mary Parker for their work in beginning this project and providing great information for this Zoo Guide
- Dr. Charles Jackson for proofing this project's accuracy





# GLOSSARY

<b>BIOME</b>	A major living community characterized by the dominant forms of plant life and the prevailing climate, such as desert or grassland
<b>CARCASS</b>	The dead body of an animal
<b>CARRION</b>	Dead and decaying flesh
<b>CARNIVORE</b>	A flesh-eating animal
<b>CONIFEROUS</b>	Trees or shrubs bearing cones and evergreen leaves
<b>DECIDUOUS</b>	Trees that shed or lose their leaves at the end of the growing season
<b>DIURNAL</b>	Occurring or active during the daytime rather than at night
<b>ECOLOGY</b>	A branch of science concerned with the interrelationship of organisms and their environments
<b>ECOSYSTEM</b>	An ecological community together with its environment, functioning as a unit
<b>ESTUARY</b>	The wide part of a river where it meets the sea where fresh and salt water mix
<b>HABITAT</b>	The area or environment where an organism or ecological community normally lives
<b>HERBIVORE</b>	An animal that feeds chiefly on plants
<b>HOMOZYGOUS</b>	Carrying two identical copies of a gene for a given trait on the two corresponding chromosomes
<b>INSECTIVORE</b>	An organism that feeds mainly on insects
<b>KIND</b>	The original organisms (and their descendants) created supernaturally by God as described in Genesis 1 that reproduce only members of their own kind within the limits of pre-programmed information, but with great variation
<b>LIGER</b>	The offspring of a male lion and a female tiger
<b>MAMMAL</b>	Any of various warm-blooded vertebrate animals characterized by a covering of hair on the skin and, in the female, milk-producing mammary glands for nourishing the young
<b>MARINE</b>	Native to or inhabiting the sea
<b>MARSUPIAL</b>	Mammals of which the females have a pouch (the marsupium) where the young are fed and carried
<b>MONOTREME</b>	An order of egg-laying mammals restricted to Australia and New Guinea and consisting of only the platypus and the echidna
<b>NATURALISM</b>	The system of thought holding that all phenomena can be explained in terms of natural causes and laws without recourse to spiritual or supernatural explanations
<b>NOCTURNAL</b>	Occurring or active during the night rather than in daytime
<b>OMNIVORE</b>	An animal that feeds on both animal and plants
<b>OVIPAROUS</b>	Producing eggs that develop and hatch outside the mother's body
<b>PLACENTAL</b>	Mammals having a placenta—an organ that nourishes the developing young by receiving nutrients from the mother's blood and passing out waste
<b>VIVIPAROUS</b>	Giving birth to live offspring that develop within the mother's body







# INTRODUCTION

## ZOOS AND THEIR UNDERLYING PHILOSOPHIES

Anticipation always accompanies a trip to the zoo. And why not? The zoo is filled with exotic animals that most people don't see everyday. The zoo is a place where a child can watch and learn from the animal kingdom up close and personal. But what lessons are zoos teaching? Are they teaching the true history of each animal? In most cases, if not all, zoos teach evolution and naturalism—teachings that are not in God's Word. On exhibit plaques and brochures throughout these zoos, the teachings of evolution claim that every feature of every animal are the results of natural processes that occurred by chance. As you take your trip through the zoo, enjoy the wonders of God's creation, but be aware of the teaching that is set before your eyes and minds and the eyes and minds of your children. Zoos have their own philosophies about the origins of life, and those philosophies will be displayed throughout the zoo. Look for those philosophies, and use them to teach your children and to remind yourself of God's hand in all of nature.

## DAYS OF CREATION

In Genesis 1 God tells us how and when He created everything—the animals, the stars, the moon, and man. The Bible tells us that on Day 1 God created the earth, space, time, and light. On Day 2 He separated the waters on and above the earth. On Day 3 He created dry land and all the plants. On Day 4 God created the sun, moon, and stars; and on Day 5 He created the sea animals and the birds. Day 6 was when God created the land animals and man. When God created the first man and woman, He made them different from the animals. He created Adam out of the dust of the ground and Eve out of Adam's rib. God created man and woman in His image so that they could have a relationship with their Creator God. Now, the animals that we see in the zoo probably do not look exactly like the animal kinds that God originally created on Days 5 and 6, but we will discuss that later (see Animal Kinds and Adaptations on page 2). According to the Bible, God took six days close to 6,000 years ago to create all the original kinds of plants and animals, the whole universe—the sun, moon, and stars—and Adam and Eve. Everything was perfect, and God called all He had created "very good."



## THE FALL

God's creation was perfect; there was no sickness, pain, or death. But this perfect creation did not last long. God placed Adam and Eve in the Garden of Eden where they could enjoy all of His creation. God gave Adam and Eve a rule: Don't eat of the Tree of the Knowledge of Good and Evil. God told them that if they ate of it, they would die. One day Eve was walking in the Garden and the serpent spoke to her. He questioned God's goodness to Eve, and he tempted her to eat the fruit from the Tree of the Knowledge of Good and Evil. Eve ate of the fruit and disobeyed God. She then gave the fruit to Adam, and he ate. This disobedience was sin against a holy God. And since God is completely holy, He had to punish that sin. God had warned Adam and Eve that if they ate of the Tree, they would die. When God came to walk with them that evening, He punished their sin. The earth was now cursed. Death was now part of life; both animals and humans would now

die (Genesis 3:19; Romans 8:20–22). When the first humans sinned, it changed all of creation. The ground was cursed and would produce weeds and thorns (Genesis 3:17–18). Animals began to hunt other animals. Man would now have to work hard for food, and woman would have pain in bearing and raising her children. All mankind would now be born with a sin nature, which causes us to reject God. Adam and Eve's first sin is what we call the Fall.

## DEATH

Since death was a result of the Fall, you may wonder what Adam, Eve, and the animals ate when they were first created. The answer is simple. According to God's Word, they ate plants (Genesis 1:29–30). Even though this answer sounds simple, it has caused some to wonder about the difference between plant life, animal life, and human life. The Bible says that death was a result of the Fall (Romans 5:12), but if plants died before the Fall, then death was present before sin. The difference between plant life, animal life, and human life is spoken of in the Word of God. Throughout the Bible, the Hebrew word *nephesh chayyâh* is used to describe human and animal life. When referring to mankind, *nephesh chayyâh* is often translated as "living soul." When referring to animals, it is translated "living creature." However, this word is never applied to plant life. There is a plain distinction. It is easy to see that plants do not experience pain, suffering, or death in the same way that humans and animals do. Their death is not the death of a "living soul" or "living creature." Therefore the eating of plants did not constitute death before the Fall. Possibly included with plants are the lower invertebrates, since they too were excluded from the *nephesh chayyâh* creatures. Therefore, some animals may have originally also eaten insects and other lower invertebrates. To gain a better understanding that there was no "living creature death" before the Fall of Adam, we must interpret the Bible correctly and read what God has written. God's Word plainly teaches that death is the result of sin. Therefore, there was no human or animal (*nephesh chayyâh*) death before sin. Adam, Eve, and all the animals ate plants and probably lower invertebrates before the Fall.

## THE FLOOD

Ever since Adam, man has continued to turn his back on his Creator and has done his own thing. The people grew so wicked that God decided to destroy the earth and everything that lived on the earth. But God knew one man who followed Him. That man was Noah. God spoke with Noah and told Noah that He was going to destroy all the earth by water—a global flood. However, God wished to spare Noah, and so He told Noah to build an Ark, which would hold his wife, his sons, their wives, and two of every kind of air-breathing, land animal and bird (and seven of some). This boat was huge. It was over 400 feet (122 meters) long and 75 feet (23 meters) tall. It took Noah quite a while to build his boat, but once he, his family, and the animals were on board, God closed the door. Then for 40 days and nights, the water in the atmosphere fell, and the waters in the earth came out. For 150 days water covered the whole earth, covering even the earth's highest hills by over 22 feet (7 meters). And the waters remained on the earth for over a year, until Noah and his family could leave the Ark. All the people and land animals outside the Ark died. The waters were so powerful that tons of rocks and dirt were moved around during the Flood. Plants, animals, and even humans became buried in this dirt. Some of these bones have been dug up today; they are called fossils. Not all fossils are from the Flood, but most of them are. After the floodwaters drained into the ocean basins, the whole earth was changed—mountains, valleys, the climate ... everything.







## EXTINCTION

When all members of a certain type of animal die out, it is said to have gone extinct. Extinction may occur because of changes in habitat, sickness, disease, starvation, or by hunting. Many animals have become extinct in the past and extinction can happen to any animal. One extinct animal (as far as we know) that everyone enjoys is the dinosaur. When talking about the dinosaurs, or any other extinct animal, we must keep some things in mind. First, we know that dinosaurs were real because the Bible says that land animals were created on Day 6, and since dinosaurs are land animals, they were included in this creation. We also know that dinosaurs were real because their bones have been discovered and preserved for us to see. Second, we must remember that when God sent the Flood to punish mankind's wickedness, God preserved his creation by sending animals onto the Ark. Dinosaurs would have also been on the Ark and preserved from the Flood. Dinosaurs could have fit on the Ark, since young dinosaurs are on average about the size of a small pony. And God would have preserved the younger dinosaur kinds to reproduce after the Flood. Third, since representatives of the dinosaur kinds were on the Ark and survived the Flood, something must have happened to them after that, which caused them to die out. There are many things that could have contributed to the extinction of the dinosaurs, including climate change, starvation, diseases, and hunting by humans and/or other animals (some of the same reasons animals today become extinct!). Finally, we should remember that some animals that were thought to have been extinct for a long time have actually been found alive and well in different parts of the world (for example, the coelacanth). So, is it possible to ever find a live dinosaur on earth again? Maybe!

## ANIMAL KINDS AND ADAPTATIONS

On Days 5 and 6 God created the various animal kinds. What is an animal "kind"? Most likely, a "kind" represents a group of animals that can mate with others in that group. It is not necessarily the same grouping as the species that we use today. For example, lions, tigers, jaguars, and leopards are classified as different species, but are probably all members of an original cat kind. And donkeys, zebras, thoroughbreds, and Arabians are probably all part of one of the original horse kinds. What did these original kinds look like? We don't know for sure, but the representatives of each kind had enough information in their DNA to produce the wide variety of animals that we see today. (DNA is the molecule inside the body's cells that contains the genetic information that will determine the growth and development of that organism.) For more information on the original kinds, see [www.answersingenesis.org/go/liger](http://www.answersingenesis.org/go/liger). Note: Separating the different animal species into animal kinds is still being studied and is not definite. Throughout this guide, references to animal relations in regard to their original kind is tentative and not a definite division. Even though we have attempted to show animals included within each animal kind, the lists are not intended to be all-inclusive.



## DEFENSE ATTACK STRUCTURES

The Bible tells us that before the Fall, every animal ate only plants and vegetables (Genesis 1:29–30). Death (including animal death) entered the world as a result of Adam's sin (Romans 5:12; 8:20–22). It was only after the Flood that God gave man permission to eat other things besides plants (Genesis 9:3). As you look at the animals in the zoo, you may wonder how there could be no animal death before Adam sinned, when so many animals look like they were designed to attack and eat other animals, or to defend themselves from other animals. There are several possible explanations. First, the harmful structures (like sharp teeth, poison, and claws) may have been used for different functions before the Fall and animals only began using them for attack and defense afterward. A second possibility is that the defense or attack structures may have changed into what they are

today by mutations or other processes. A third option is that the animals may have been redesigned after the Fall, as part of God's curse on all of creation, including the animals (remember, the form of the serpent was changed—Genesis 3:14). And finally, it is also possible that since God foreknew the Fall would happen, the information for these structures could have been "programmed" in the first animals and that the information was "switched on" after the Fall. The most important thing to remember about defense and attack structures is that they were not part of God's original creation; they came about as a result of the Curse on creation after Adam sinned.

## **EVOLUTION**

A popular belief today is that all animals and humans evolved (changed) from one kind into another kind over millions of years. Evolution claims that everything we see happened by purely natural processes. Some believe that in the beginning God created simple life forms, and then let natural processes take over, so that what we see today evolved from these early simple life forms. Some say that there is no God who created or began anything. These people would say that everything is the result of time and natural processes, that everything happened by accident. Evolution often includes the belief that life formed from something that was not living, and then that life evolved, over millions of years, into the different animals we have today. Some evolutionists even believe that humans evolved from ape-like creatures and that dinosaurs evolved into birds. Scientists have demonstrated for us that these things are just not possible: life can't come from non-living chemicals; animals don't change into other kinds of animals. Even though evolution is taught in most public and private school textbooks, molecules-to-man evolution is not fact. It is based on the ideas of man, not on the Bible, which comes from God.

## **NATURAL SELECTION**

Many evolutionists claim that natural selection is the process that drives evolution. However, natural selection actually works in the opposite direction of what molecules-to-man evolution requires. Evolution requires that, over time, living things must add more information to their DNA as they gain new features, abilities, or structures. However, scientists have shown us that this doesn't happen. But scientists have observed that animals reproduce "after their kind," just as the Bible teaches (dogs have puppies, cats have kittens, geese have goslings, kangaroos have joeys, etc.). Sometimes, some animals aren't born with the ability to survive in their environment. Natural selection is the process by which animals die out when they don't have the ability to adapt to their surroundings. Those animals that have the ability to adapt are able to survive and reproduce more animals like themselves. For example, many animals that live in drier regions of the world are able to gain most of the water they need from the plants they eat. Animals without this feature would have a harder time trying to survive in that region, and would eventually die out. God created the original animal kinds with much diversity in their DNA, so that as they reproduced and filled the earth, their descendants would be able to adapt to many different environments. Natural selection may bring about a new variety of animal, but cannot generate a new kind of animal.

## **BIOMES**

The world is full of diversity. Different animals, different people groups, and different habitats make each area of the world unique. The world today is actually divided into five major habitats, called biomes. These biomes range in temperature and rainfall, and therefore they have very different



animal and plant life. It is important to have a basic knowledge of these different biomes to better understand why certain animals live in certain regions of the world. The four major biomes are as follows: arctic, forests, grasslands, and deserts. Let's look into them a little more.

## **ARCTIC**

The Arctic region, also known as the tundra, is located near the north and south poles. Here most of the land is frozen all year long because of the extremely low temperatures. There is very little precipitation, and therefore very little plant life. Actually, there are very few trees that grow in this region. The animals that live here have adapted to live within this freezing habitat.

## **FORESTS**

Following the Arctic region comes the forest. This region can actually be separated into three separate regions: coniferous forests, deciduous forests, and rainforests.

### **Coniferous**

The coniferous forest region, also called the taiga or boreal forest, comes first. This region is closest to the Arctic region and still has extremely cold temperatures. It also has low precipitation and forests of coniferous trees. Coniferous trees are trees that produce cones (for example, pine trees). There is limited animal and plant diversity because of the more severe temperatures. The animals in this habitat are either equipped to live within these temperatures, or they were designed with the knowledge and ability to migrate south during the harshest winter months.

### **Deciduous**

Deciduous forests are filled with trees that lose their leaves during the winter months and regrow them in the spring. Within this region temperatures and precipitation vary through four seasons: spring, summer, fall, and winter. This region is home to a great diversity of plant and animal life because of its temperate climate and appropriate rainfall.

### **Rainforest**

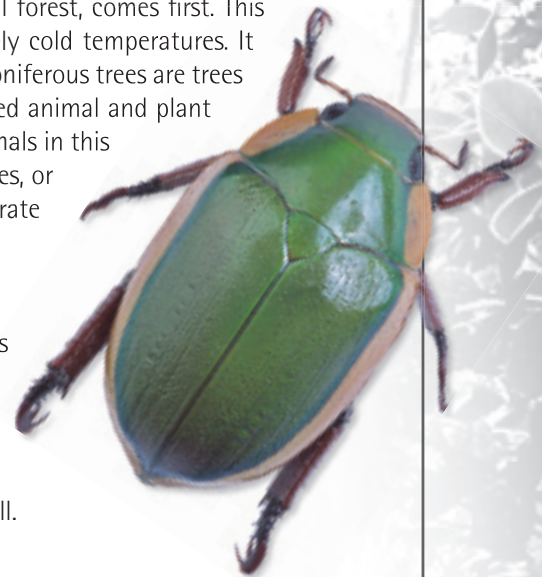
The rainforest region is located close to the equator where the greatest amount of rain falls throughout the entire year. Temperatures also remain high throughout the year as well. This region has the greatest variety of both plant and animal life.

## **GRASSLANDS**

Also known as savannas, pampas, plains, steppes, and prairies, grasslands are regions mostly located between forests and deserts. Grasses cover the grasslands, and a few trees and low shrubs dot the terrain. The temperatures vary from the hot summers to the cold winters in some locations. These areas also have short wet seasons.

## **DESERTS**

This region is the harshest environment of all with its low rainfall and extreme temperatures. Nights are very cold, and days are very hot. Deserts, however, are mostly classified by the





amount of precipitation received in a year. Arctic regions can also be classified as deserts since they too receive a small amount of precipitation. Plant and animal life is very limited in deserts, but God equipped certain animals and plants to live in this region.

## STEWARDSHIP

After God created Adam and Eve, He told them to be fruitful and multiply, and to have dominion over the creation (Genesis 1:26–28). They were to tend the Garden and to eat from its produce. They were also to care for the animals. God owns the earth (Psalm 24:1), but He has asked us to be responsible stewards of His creation (which is now suffering from the Curse). We can do this by not littering or polluting our air or water unnecessarily. Stewardship can be taken to an extreme of placing the animals over humans, but we need to be careful to avoid this mentality. Man is God's special creation, since we were created in His image (Genesis 1:26–27). Let's all do our part in being good stewards of the world that God gave us so that others can also enjoy it in the years to come.

## THE GOOD NEWS

When Adam sinned, all of creation was cursed. Part of that curse on man was separation between God and man. Before the Fall, Adam and Eve had walked with God in perfect fellowship, but after the Fall, sin separated man from his Creator. And sin continues to separate us from God. God is perfect and requires those who come to live with Him to also be perfect. But since we are born with a sin nature and because we sin against God daily, we can never get to Heaven by anything that we do. And since God must punish sin as He punished Adam and Eve's sin in the Garden, our punishment is an eternity separated from God. It sounds hopeless, unless there is someone who would be willing to pay our sin penalty for us. That someone must be without sin—perfect. Jesus, the Son of God, is that perfect God-man who took upon Himself the penalty for our sin. Jesus died on a cross, paying for our sin; and three days later He rose again, defeating death to provide us with a way to one day live with Him. But for us to be acceptable to God, we must repent of our sins and place our faith in Jesus. We must believe that Jesus took our place on the Cross and died for us. Even though some people say that there are many ways to God, there is actually only one way. Jesus said in John 14:6, "I am the way, the truth, and the life. No one comes to the Father except through me." Jesus is our only way to be reconciled with God. We can never earn eternal life on our own, because of our sin. Jesus paid our penalty and made a way for us to live with Him forever. We must repent of our sin and place our trust in Him—that is the good news.





**GIANT ANTEATER**



# GIANT ANTEATER

## CREATED ON DAY 6

### DESIGN

The anteater is important to the area where it lives. Since it dines on termites and other harmful insects, the anteater keeps these colonies in check. It is also an interesting animal to look at with its unusual and distinct features. The giant anteater is designed with the ability to smell 40 times better than a human. They use their keen sense of smell to locate food.

### FEATURES

- The anteater walks on its knuckles with its toes pointed to the sides.
- They have powerful forearms and sharp claws that they use to rip open termite and ant nests.
- Giant anteaters do not have teeth while the other two species have small rudimentary teeth that are fragile and soft.

### FUN FACTS

- The anteater has a tongue that can reach almost 2 ft (0.6 m).
- These animals sleep as many as 15 hours a day. They sleep during the day and hunt for food at night.

### CREATED KIND MEMBERS

Tamandua, silky anteater

CLASS: Mammalia (mammal)  
 ORDER: Xenarthra (strange-jointed)  
 FAMILY: Myrmecophagidae (anteaters)  
 GENUS/SPECIES: *Myrmecophaga tridactyla*

Size: 6–8 ft (1.8–2.40 m)  
 Weight: Males: 40–90 lbs (20–40 kg); Females are smaller than males.  
 Original Diet: Plants and insects  
 Present Diet: Insects such as termites, ants, and beetles  
 Habitat: Grasslands and tropical forests





**GIRAFFE**

# GIRAFFE

## CREATED ON DAY 6

### DESIGN

The giraffe is amazingly designed. The unique design of its lungs, heart, capillaries, and birth process all play vital roles in the giraffe's survival. The heart has to pump enough blood into the giraffe's brain while the capillaries have to prevent the high blood pressure from affecting the animal when it bends over to get a drink. The lungs, which are eight times the size of a human's, provide enough oxygen to the brain. Giraffes give birth while standing up. Such a fall would mean certain death to the newborn except for the fact that they lower their young to the ground slowly through use of their after-birth.

### FEATURES

- The giraffe is the tallest animal in the world.
- Each giraffe has a specific set of markings unlike any other giraffe.
- The giraffe has two or three "horns" on its head called ossicones.

### FUN FACTS

- Giraffes have only seven vertebrae in their long necks.
- A giraffe's heart is over 25 pounds (11 kg) which allows it to pump blood all the way up its long neck.
- The giraffe actually has the longest tail—almost 8 feet (2.4 m)—of any mammal.

### CREATED KIND MEMBERS

Okapi

CLASS: Mammalia (mammal)  
 ORDER: Artiodactyla (even-toed hooves)  
 FAMILY: Giraffidae (giraffes and okapis)  
 GENUS/SPECIES: *Giraffa camelopardalis*

Size: Up to 14–18 ft (4.3–5.5 m) tall  
 Weight: Males: 3,000 lbs (1,360 kg); Females: 1,500 lbs (680 kg)  
 Original Diet: Plants  
 Present Diet: The leaves of the mimosa and acacia trees  
 Habitat: Savannas of Africa