

Classifying Animals

An animal is generally considered any living organism other than a plant. Sometimes there is confusion about whether animals are wild or domesticated.



DOMESTICATED ANIMALS

Domesticated animals are those animals that humans have tamed, kept in captivity, and bred for special purposes. Cattle used for food, sheep for wool, dogs, cats, birds, and fish commonly held as pets are all domesticated animals. Pygmy goats have been domesticated since 7500 B.C.

WILD ANIMALS

Wildlife is any animal that lives in a basically free condition, providing its own food, shelter, and other needs in a suitable habitat. It is not tamed or domesticated. Sometimes individual animals may be tamed, like the animals in the zoo, but most of their numbers are wild. A wild animal may appear to be tame, but still should be considered wild unless it is both tamed and domesticated. This cougar was being kept as a pet at someone's house until the police and S.P.C.A. confiscated him in 1992 and brought him to the zoo.



If you should have any question whether an animal is wild or domesticated, just remember that wild animals usually take care of themselves and domesticated animals depend on people to feed and take care of them.

NATIVE OR NON-NATIVE

Animals that have originally lived in a certain area are called native. Animals that have been introduced into an area either intentionally or by accident are called non-native. Both good things and bad things have happened when non-native species have been introduced into an area.

Did you see any animals at the zoo that are:

- native to Delaware?
- native to the U.S.?
- native to South America?

VERTEBRATES OR INVERTEBRATES

Animals may also be grouped according to their structure into two groups - vertebrates and invertebrates. Vertebrates are animals with backbones and invertebrates are animals without backbones. All the animals at the zoo have backbones, so they are called vertebrates. There are five different classes of vertebrates: fish, amphibians, reptiles, birds, and mammals.

FISH

Fish are vertebrates. They are cold-blooded animals. A fish's body temperature is the temperature of the water that it is in. Fins help fish swim. There are many kinds of fins. There are fins on the top, bottom, and sides of the body of the fish. Gills help the fish breathe. Gills are thin, feathery structures that are filled with blood. When a fish breathes, they suck in water. Then the water flows over the gills. Next the oxygen from the water goes into the blood in the gills. From there it circulates through the fish's body. While that is going on, carbon dioxide goes through the gills and then out of the fish's body into the water.

Fish have scales, too. When you want to eat a fish, you must scrape the scales off before you cook it. Although a catfish is a fish, it doesn't have scales. It has skin.

There are many kinds of fish. A few of them are: eels, flying fish, catfish, seahorses, skates, and swordfish. Scientists believe that sharks and stingrays aren't true fish. Instead of bones, they have cartilage. Cartilage is a soft, bonelike material that bends. You can feel cartilage in the tip of your ear or nose. Fish are found in salt water and fresh water. They are a major food in the U.S.A. Each year about 66 billion kg of fish are caught.

AMPHIBIANS

What is an amphibian? An amphibian is a cold-blooded vertebrate. Toads, frogs, and salamanders are some very common amphibians that you may know about or may have seen. Amphibians don't have scales. Instead, their skin is usually moist and slimy.

All amphibians spend part of their life on land and the other part in the water. Mostly all adult amphibians live on land and just return to the water to lay their eggs. However, some amphibians such as bullfrogs and some salamanders spend most of their life in water. When an amphibian lives on land, it has lungs. When it lives in water, it has gills. Amphibians also may get oxygen through their skin.

Amphibians such as frogs and toads go through several stages of life. Adult frogs go to the water to lay eggs. The eggs look like white blobs of jelly with a black spots inside. Then the eggs hatch into tadpoles that look like black guppies. After awhile the tadpoles sprout legs. Eventually, front legs grow. Then the tail begins to disappear. When the tail is not there anymore, it's an adult, and it lives on land. Other amphibians also go through life stages similar to these.

REPTILES

A reptile is a cold-blooded vertebrate that has lungs and dry skin. Almost all reptiles have scales. Most reptiles live on land and lay eggs. Some give birth to live young. There are 4 main groups of reptiles. These are: crocodylians (alligators and crocodiles), snakes, lizards, and the turtles.

Crocodiles and alligators are four legged animals that breathe with lungs but spend much time in water. One way to tell alligators from crocodiles is by the shape of the head. An alligator has a wide head with a short, blunt snout. A crocodile has a triangular-shaped head with a long, narrow snout.

Snakes make up the largest group of reptiles. They do not have legs, and their bodies are covered with thin scales. Snakes can be large or they can be small. The anaconda, from South America, can be more than 9m long. The thread snake is only about 12cm long. Snakes have an unusual way of eating. They swallow their food whole. Most of the things snakes eat are bigger than its mouth. The snake's jaws stretch sideways. This helps the snake swallow animals bigger than its mouth. The snake's teeth are curved toward the back of the mouth.

Another group of reptiles is the lizards. There are many different kinds of lizards. Many live in deserts and other hot, dry places. Lizards have claws on their toes. The body of a lizard is covered with scales.

Turtles are the slowest reptiles on earth. Turtles can live on land and water. Their shells protect them from danger. In danger some turtles, like box turtles, pull their arms, legs and head into their shells. Turtles can close their shell tight so animals that eat turtles can not get in the shell.



SALAMANDER



TOAD



ALLIGATOR



SNAKE



LIZARD

BIRDS

Birds are vertebrates with lungs. They are warm blooded animals that are covered with feathers. They lay eggs with hard shells.

Birds have wings, but not all birds use their wings to fly. At the Brandywine Zoo there are birds that can fly and birds that cannot fly. When you visit the zoo, see if you can find the birds that do not fly. However, most birds do fly, and their bones and wings are made a certain way to help them fly. The bones are hollow and they are light. The feathers have a hollow shaft in the middle so it makes them strong and light. Large birds may have as many as 25,000 feathers. All birds loose feathers once a year. That is called molting. Birds also use their feathers to help them keep warm. Birds fluff their feathers. The fluffing helps keep them warm by making more air spaces between the feathers. Also, birds have down feathers, and down feathers help keep air close to the birds' bodies.

Most all birds spend a great deal of their time looking for food because they require a lot of energy because they are so active. Different birds eat different food. For example, some eat nuts, some eat seeds, some eat small water plants and animals, some eat dead animals, and some eat oysters and fish. You can often tell what a bird eats by looking at its beak. Go to Observing Birds and look at some of the different kinds of beaks.

Birds live in trees, on land, and on water. They make many different kinds of nests. Sometimes the male makes the nests, and sometimes the female makes the nests. Nests are all different sizes and shapes. Nests can be made of twigs, leaves and feathers. They can also be made of mud and anything that a bird can find.



TOUCAN



MACAW

MAMMALS

Mammals are a large group of animals, and they come in all different sizes and forms. For example, a blue whale is the biggest mammal, and a shrew is one of the smallest mammals. All mammals have a backbone and are warm blooded. All mammals have hair or fur on their body at some point in their lives. Mammals also breathe through lungs. Even dolphins and whales breathe through lungs.

A platypus is a weird kind of mammal because it has webbed feet, a bill like a duck, and it lays eggs but it is still considered a mammal. Mammals usually have birth to live animals, but the platypus is an exception. The mother feeds the baby with milk from its body when the baby is young.

Different mammals can have different numbers of babies. Mice can have up to ten babies at one time, and an elephant generally has one baby at a time. The bigger the animal the longer it takes to have the baby. For instance, a puppy develops in its mother in about 60 days, but a whale takes about 450 days to develop.



TIGER



BOBCAT

Brandywine Zoo has three of the classes. Which are they?

Name 5 different reptiles, 5 birds, and 5 mammals at the zoo.

Reptiles

Birds

Mammals

How do reptiles, birds, and mammals differ from one another?

