Earth is home to millions of living things. Many of these living things are plants and animals. Each type of plant and animal has its own shape, size, and color. Some even have their own smell and sound. We call these different things traits.

Traits help plants and animals survive where they live. For example, the spotted fur on a newborn fawn helps it hide on the forest floor. Hiding can help a fawn survive. Another example is the thorns on a black locust tree. They protect the branches from browsing animals.

Plants and animals get their traits from their parents. Each plant or animal has a combination of their parents’ traits. Take YOU, for example: Your hair color, smile, and voice are just a few of the traits passed onto you by your parents. However, you do not look or sound exactly like your parents or anyone else. You are the only you!

Each plant and animal lives in a place that suits it best. This place is its habitat. Habitat is where a plant or an animal finds what it needs to survive. The most important things an animal needs in its habitat are food, water, shelter, and space. For example, foxes need habitat with mice and small animals to eat. Foxes need places to find water, such as streams and ponds. They also need places for shelter. Foxes like dens in the ground. Foxes need a habitat big enough to hold all these things. The best fox habitat is often near a farm. Farms have woods and fields with plenty of fox food, water, shelter, and space.

Plants need different things from their habitat. They need water and nutrients from the soil.

Lion Tracks painting by Dan Christ

Mountain Lions and Passenger Pigeons paintings by Dan Christ

Atlantic Sturgeon and Clubshell Clam paintings by Dan Christ

Endangered in PA

Now Extinct in PA
Many of these new plants may have their parents’ trait of extra wax. They will be better able to survive dry times in the future. Over long periods, sometimes thousands of years, plants and animals slowly adapt to their habitat. This helps them survive a changing habitat.

Turtles are animals that adapted to their habitat. They do not have teeth, but they need to eat their food. Many types of turtles adapted to have a hard, sharp beak that lets them tear their food. Snapping turtles have a hooked beak and strong jaw. When snapping turtles bite down, their food does not get away! Can you think of other animals that have adapted to their habitat?
Sometimes all the plants or animals of one kind cannot adapt or change with their habitat. Sometimes they cannot move to another place. When this happens, this kind of plant or animal becomes extinct. Extinct means that there are none left living. This can be part of the natural process. At other times, plants and animals become extinct because something kills them all. Diseases, other animals, pollution, or people can cause this to happen. Two animals that are extinct in Pennsylvania because of people are passenger pigeons and mountain lions. Two hundred years ago, both were common in the state.

Diseases also kill plants. The American chestnut tree once grew everywhere in the Pennsylvania woods. Today, there are not many left. A disease from Asia spread to the state and killed most of the chestnut trees. Plants and animals are called endangered when there are very few left. Atlantic sturgeon is an endangered fish in Pennsylvania. Dams and water pollution changed their river habitat. Bald eagles were endangered once too. Many people worked hard to protect them. When a type of plant or animal is at risk but not quite endangered, we say it is threatened. Showy lady’s slipper is a threatened plant in Pennsylvania. Can you guess why?

Laws help protect endangered and threatened plants and animals. There are also laws that protect habitat. Wildlife refuges, gamelands, state forests, and parks are places where habitat is protected. Hunting laws also protect certain kinds of animals to keep their numbers at healthy levels. Every different kind of plant and animal is important to our world. The best thing we can do for plants and animals is to protect and care for their habitat. All living things need a good place to live.

Showy lady’s slipper is a threatened plant in Pennsylvania. Never dig them up or pick them.