

## **Striped Fur**

Striped fur is one variation of a special adaptation called camouflage. Striped fur, in most cases, helps animals blend into their environment. This helps the animal in one of several ways, including hiding from predators and sneaking up on prey. Striped fur, as in the case of a tiger's vertical stripes, serves the animal by helping it match the surrounding vegetation, thus making it nearly invisible to other animals. In other animals, like the skunk, the stripes serve as a warning to predators. In this way, the stripes serve as a defense mechanism.

## **Brightly Colored Feathers**

Found mostly in tropical rain forests, birds with brightly colored feathers are another example of an animal with an adaptive body covering. Brightly colored feathers can serve several purposes, including camouflage, defense, and mating. In some parts of the rain forest, the macaw and its brightly colored feathers can hide amid similarly brightly colored plants and flowers. The male peacock uses its bright feathers for another purpose: attracting a mate. In contrast to the male, the female has very dull colored feathers. This feature, common among female birds of most species, helps females hide while guarding their nest and protecting their young.

## **Scales**

One final type of body covering is scales. Scales serve a purpose different than that of fur and feathers. Scales are mainly a protectant from the environment for most animals. For instance, anacondas and other snakes have scales to protect their bodies from the variety of terrain they encounter. In the case of the anaconda, its habitat is largely made up of water. In the case of other snakes, the climate may be dry and the land sandy and rocky; so they cannot afford to lose water from their body. Scales help protect the body of the animal in an instance

## **Webbed Feet**

In most aquatic animals, swimming is a must. To aid swimming, many animals have adapted and evolved with webbed feet. Webbed feet help animals propel themselves through the water with ease. This can help the animal swim faster to catch prey or escape a predator. Also, if an animal has to swim long distances, webbed feet can help it save energy so it can swim farther.

## **Sharp Claws**

Many land and sea animals alike have developed sharp claws. Sharp claws can be used for many different purposes. For instance, many herbivores use their sharp claws for digging for berries, roots, and herbs or burrowing for shelter. Animals that eat meat may use their claws for killing their prey or tearing meat from their kills. Also, claws can be used to increase traction to run faster, as in the case of the cheetah. Other times, sharp claws have evolved for use in defense.

## **Whiskers**

Although not usually thought of as an adaptation, whiskers serve an important purpose for many animals. In most cases, whiskers around the face, specifically the mouth area, help the animal feel its way through tight spots. In a way, they serve as "feelers," telling the animal whether or not it can fit into a specific area. One example is that of the North American river otter, which can use its whiskers both on land and in water. On land, they are used to feel their way through narrow channels, with a similar purpose for the whiskers under water. They are also useful to sense prey.

## **Hooves**

Hooves are another body part that are an important adaptation for many large animals. In most cases, animals with hooves use their specially adapted feet to maneuver in a rocky environment. Hooves protect the feet of these animals and allow for greater mobility than unprotected feet.

## Structural adaptations

All organisms have adaptations that help them survive and thrive. Some adaptations are **structural**. Structural adaptations are physical features of an organism like the bill on a bird or the fur on a bear.

### Examples of

#### Structural adaptations

**Teeth** - since different animals eat different things, they don't all have the same kind of teeth

**Body coverings** - Hair, scales, spines, and feathers grow from the skin. All of these parts help animals survive in their environments.

**Movement** - animals find food by moving from place to place

## Structural Adaptations of the Polar Bear



1. Long, stiff hair between pads of bear's feet:
  - Protect bear's feet from the cold
  - Provides traction on the ice
  - Help the bear swim in cold, icy water
  - Also helps to keep bear from slipping on the slippery ice
2. Hollow fur
  - Traps air inside, thus making the bear buoyant in water
  - The layer of air provides insulation between their warm bodies and the cold Arctic air and water
3. Small and rounded ears
  - Prevents water from entering the bear's ears and freezing their eardrums
  - Helps conserve body warmth in sub-zero temperatures
4. Thick layer of fat (blubber) under skin
  - Up to 11 cm thick
  - Insulates bear from arctic cold

Another example of a **structural adaptation** is the way some plants have adapted to life in the **desert**. Deserts are dry, hot places. Plants like cactus have adapted to this **Climate** by storing water in their thick stems and leaves.

