

Animal Adaptation

Webbed Feet

In most aquatic animals, swimming is a must. To aid swimming, many animals have adapted and evolved with webbed feet.



Platypus



Ducks



Sea Turtles



Penguins



Sharp Claws

Many land and sea animals alike have developed sharp claws. Sharp claws can be used for many different purposes by plant eating and meat eating animals alike. They are used for food, increased traction and defensive purposes.



Koala Bears _ have sharp claws that help them climb onto eucalyptus trees



Bears with sharp claws used for defense



Cheetahs – use their sharp claws for increased traction



Whiskers

Although not usually thought of as an adaptation, whiskers serve an important purpose for many animals – as feelers and to sense prey.



Seals use whiskers to detect invisible trails in water left behind by their prey



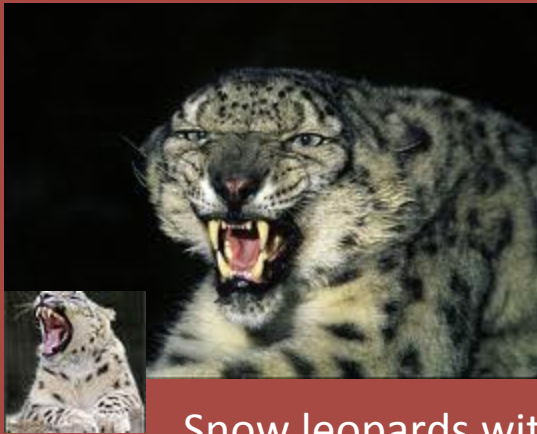
Whiskers have very long roots and they serve as sense of smell among big cats to identify their prey.



Cats use their whiskers to feel through tight spaces

Sharp Teeth

One of the most visible adaptations on many animals, sharp teeth help an animal eat meat and as a means of defense. E.g. are the snow leopard, cheetah and lowland gorilla.



Snow leopards with sharp teeth



Cheetah



Lowland gorillas

Large Beaks

Just as in the case of sharp teeth, large beaks are often an adaptation used to help an animal eat. E.g. macaw, rhinoceros hornbill.



Rhinoceros hornbill



Flamingo



Macaw



Toucans



storks

Wings/Flying

Wings are another highly visible adaptation on many animals. The primary function of wings is flight in most animals with wings. The golden eagle and peregrine falcon can reach speeds up to and above 60 miles per hour in flight. This flight is used to attack its prey. Finally, the Humboldt penguin does not use its wings to fly at all. Instead, it uses its wings as flippers to move through the water.



Golden eagle



Peregrine falcon



Humboldt Penguins

Hooves

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. E.g. include the greater kudu, zebras, and the Dall sheep.



Zebra Hooves



The
greater
Kudu



The Dall sheep

Body Coverings

- **Mammals** have hair, or fur, that helps insulate their bodies. It keeps them warm in winter and can protect specific areas of the body, like eyelashes protecting the eyes. Some mammals have different coverings: the armadillo has plates, the porcupine has quills, and naked skin covers the dolphin. All of these help these mammals to survive in the different conditions in which they live.
- **Birds** also have a very protective covering: feathers. The feathers keep the bird warm in winter, help it fly or swim, and help fan the bird in hot weather.
- **Amphibians and reptiles** have body coverings that protect them as well. Amphibians have moist, slick skin that is well suited for the water.
- **Reptiles** have tough, dry skin covered by scales. Insects, such as the cockroach, have coverings that enable them to squeeze into very small places. This allows them to find food and shelter.
- Many **insects** build nests (a behavioral adaptation) or cocoons (behavioral and structural adaptation) for the winter because their body coverings alone do not permit them to adjust to the cold. Many insects also have other adaptations included in their body coverings: cells that sense light and pigments that allow some insects to change colors in order to hide themselves from predators

Striped Fur

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.



Tiger's vertical stripes, serves the animal by helping it match the surrounding vegetation, thus making it nearly invisible to other animals



the skunk, the stripes serve as a warning to predators. In this way, the stripes serve as a defense mechanism

Brightly Colored Feathers

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 peafowl 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.

Male, peacock and female, peafowl



A Macaw trying to hide



Spotted Fur

Another adaptive type of body coloring is spotted fur. One example is the jaguar, which lives in the rain forest. The jaguar's spotted fur helps it blend in with the small patches of sun that reach the rain-forest floor. These patches, mixed in with the shade, produce an effect that highly resembles a jaguar's coat.



Jaguar



Spotted salamander



Snow leopard



Spotted hyenas

Scales

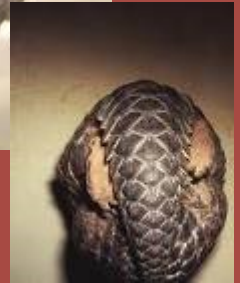
One final type of body covering is scales. Scales serve a purpose, different than that of fur and feathers. Scales are mainly a protective layer from the environment for most animals.



Anaconda



Pangolins



Tiger fish