

Organism physiology paper essay sample



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Every organism is different and has different physical attributes that allow them to survive in their habitat. Organisms can range from an animal, fungus, micro-organism, or plant. Some organisms have thick fur to deal with the cold winter as where some need the sun to survive. Evolution has given organisms their physiology to survive. Snakes as well as many reptiles have a unique physiology compared to other animals or organism. This paper will cover a snakes physiology and how it is suited to its environment. A snakes sense organs are different from other animals. Some animals use their eyesight and their hearing, whereas snakes rely on their sense of touch and smell. They do not have moveable eye lids like a bird would have, instead they have transparent caps called brille that protect their eyes. Snakes also do not have an external ear or even an ear drum, they use more of an ear bone that help it feel vibrations and sound waves through the ground.

Snakes sense of smell is also different from other animals. Animals use their nasal passages and nostrils to smell, snakes have nasal pass and nostrils but use their tongues as a smelling device. There is a small organ on the roof of the snakes mouth called the vomeronasal organ. The snakes fork shaped tongue picks up air particles and puts them into contact with the vomeronasal organ. This lets the snake perceive or identify the smell as a predator, prey, or something else. The snakes tongue is not used to taste or help with eating but only as a smelling organ. Some snakes have a sixth sense that other animals do not have. These snakes have special pits between their eyes and nostrils. The pits are used to sense temperature changes as infrared rays to aid them in locating warm blooded animals such as a rat.

There are two chambers in a pit, the interior and the exterior chamber. The interior chamber is the snakes temperature as where the exterior chamber heats up when it is near to heat source. The chambers are accurate enough to detect a change in temperature as little as 0.0002 Celsius. Snakes are covered in scales like other reptiles to protect them from dehydration or absorption. The scales on the top and sides of the snake are thinner than those on the belly of the snake, which are thicker to protect the snakes belly from the ground. The snake is often considered to be slimy when in fact, its scales are very dry. It does not have many skin glands, it only has two that are in the anal part of the snake. These skin glands are used to discharge a substance that can mark territory, attract a mate, or for protection from a predator. Snakes continue to grow throughout their entire lives, unlike other animals which is why snakes shed their skin periodically.

Snakes that live in the wild must be hunters to survive, but at times it is not always easy to hunt prey. Sometimes prey can become scarce and would make it difficult for the snake to eat. There are results that show that the snake can lower their standard metabolic rates, sometimes by 72%. ("Reptiles And Amphibians Suite 101," 2007). The environment where a snake lives also has an effect on how they move. According to "Pet Education" (1997-2012) there are four basic types of locomotion in snakes. The first is serpentine or lateral progression, that is the common form of traveling which is sometimes known as slithering. The lateral progression allows the snake to reach its maximum speed. The next form of transportation is the rectilinear movement that is used more by larger heavier snakes. This movement

relates to an inchworms movement which they are able to move the front part of the body and pull the rest of it along.

The is side-winding, this movement is which snakes travel sideways in a looping motion. Side-winding is used more by snake that live in the desert or environments that have loose sand. The last form of transportation is concertina, this form is similar to an accordion or a spring. The form of concertina is used when snakes need to climb trees. The snake has been around for about 100 million years, and it has come a long way. It has been able to evolve successfully to adapt to its environment. From the snakes hunting methods where it uses more of its sense of touch and smell to its surviving methods where it can lower its metabolism, the snake has evolved to survive. The snake is said to survive in any environment because of its success in surviving in harsh ones.

References

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