

Compare lifestyles of an aquatic and terrestrial vertebrate

[Environment](#), [Animals](#)



Little brown bat, *Myotis lucifugus*, and lionfish, *Pterois volitans*, have contrasting body structures and as a result behave differently and have diverse lifestyles. *Myotis lucifugus* is a terrestrial mammal with many different features that determine how they feed. They are at a disadvantage as they have small eyes and so they can't efficiently see insects to catch. They are also nocturnal or crepuscular in which they hibernate during the day so their eyesight is lessened further in the darkness when they are awake. However, they have adapted to overcome these problems by developing echolocation - the location of objects by reflected sound (Kalko, 2011). This adaptation enables them to avoid obstacles in the darkness and to locate and catch insects with accuracy (Hickman, 2011). They also have pointed teeth which permit them to puncture the exoskeleton of their prey (Paulo Estefano D. Bobrowiec, 2015)

Pterois volitans is an aquatic fish that has also developed ways to obtain nourishment efficiently. Changes in jaw suspension allowed teleost's to be able to capture food by suction feeding where rapid expansion of the orobranchial cavity creates negative pressure, drawing in the prey (Hickman, 2011).

The characteristics of *Myotis lucifugus* including how their limbs are modified into wings which enable them to fly, hooks on their hind feet and the development of echolocation determine the outcome in where these bats live and how they are protected from predators.

Echolocation allows *Myotis lucifugus* to find their way into caves. Caves are a habitat largely unexploited by other animals and so it is a safe environment

for them to live in (Hickman, 2011). Moreover, as they can fly and have hooks on their hind feet they stay off the ground keeping them safe from any predators that may enter the cave (figure 3). Some species of bat migrate however most, including *Myotis lucifugus*, hibernate to avoid competition from birds as bats are generally slower and so not as effective at catching insects. Caves are the ideal habitat for bats as they need to roost under specific temperature and humidity conditions as their membranous wings are highly susceptible to desiccation and heat loss. (Maarten J. Vonhof, 2011)

Pterois volitans also has measures to ensure their safety and an ideal habitat location. *Pterois volitans* stay in regions 0-300 metres deep where there is the presence of sea grass, mangroves that comprise a large number of the lion fish's prey so keeping them sustained. They have a specific coloration that enables them to be camouflaged and so protected from predators (Lettieri L, 2010). Furthermore they also replaced their heavy dermal armour with light, thin and flexible cycloid and ctenoid scales. These morphological adaptations resulted in increased mobility and speed. This allowed *Pterois volitans* to be more effective at avoiding predators and at feeding. Their dorsal fins are also venomous resulting in added protection.