Why do Animals Hibernate?

Do you ever find it hard to get out of your warm, cosy bed on a chilly winter morning? Don't worry, you aren't the only one! Some countries experience extremely hostile, icy conditions during winter. Animals that can't cope with sub-zero temperatures either migrate or hibernate.

Hibernation is the state of being inactive or in a deep sleep-like state over an extended period of time during winter. Hibernating helps animals to conserve their energy and survive without eating much for weeks or months at a time.

One of the main reasons animals hibernate is the lack of major food sources, such as green plants and insects, during winter. Animals consume plentiful amounts of food during the warmer months, which is stored as fat and used for energy while inactive.

During hibernation the animal's body temperature drops, and its heartbeat and breathing slow down so that it does not use much energy.

Mammals have two types of fat – brown fat and white fat. White fat is regular fat. The brown fat forms patches near the lungs, brain and heart. When it is time for hibernating animals to wake up, the brown fat sends quick bursts of energy to warm these organs.



Brown 'grizzly' bear

Brown bears hibernate, but they are not in a sleep-like state the whole time. During hibernation they do not need to eat or drink for up to 7 months-meaning they barely need to go to the toilet! It is common for sows (female bears) to give birth during hibernation.



Bats

Some types of bats enter into a 'true' hibernation, meaning they cannot be easily roused during this time. While the bat is hibernating, its heart rate drops from around 400 beats per minute to as low as 10 beats per minute. It is also common for the bats to not take a breath for up to an hour!

Other animals that hibernate include box turtles, bumblebees, garter snakes, hedgehogs, snails, raccoons, squirrels and the mountain pygmy possum.