### **WILDLIFE IN WINTER** 3



**Little Brown Bat** 

- a) Hibernation
- b) Brumation
- c) Diapause
- d) Torpor



Raccoon

- a) Migration
- b) Torpor
- c) Diapause
- d) Adaptation



### Green Frog [Aquatic]

- a) Diapause
- b) Hibernation
- c) Migration
- d) Brumation



### Groundhog

- a) Brumation
- b) Hibernation
- c) Diapause
- d) Adaptation



### **Black-capped** Chickadee

- a) Adaptation
- b) Brumation
- c) Torpor
- d) Hibernation



### **Monarch Butterfly**

- a) Brumation
- b) Migration
- c) Adaptation
- d) Torpor



### Wood Frog [Land]

- Migration a)
- b) Adaptation
- c) Diapause
- d) Brumation



### **Black Bear**

- a) Hibernation
- b) Diapause
- c) Migration
- d) Torpor



### **Snowshoe Hare**

- a) Adaptation
- b) Hibernation
- c) Migration
- d) Diapause



### **Arctic Tern**

- a) Diapause
- b) Migration
- c) Adaptation
- d) Torpor



- Torpor
- b) Adaptation
- c) Migration
- Hibernation



Woolly Bear Caterpillar

- a) Torpor
- b) Migration
- c) Diapause
- d) Brumation



Beaver

b)



- Brumation
- c) Torpor
- d) Adaptation



**Arctic Fox** 

- a) Adaptation
- b) Torpor
- c) Hibernation
- d) Brumation







- d)



## WILDLIFE IN WINTER

# **SPOILER ALERT** ANSWERS AHEAD!



### WILDLIFE In Winter

### **Answer Key**

### Little Brown Bat – Answer: Hibernation

Hanging out (literally) in frost-free, humid caves or tunnels called *hibernacula* with its friends and family, the little brown bat slows its metabolism and breathing during hibernation. The creature's heart rate drops from 200 beats per minute to 20 beats per minute as it lives off its fat reserves over the winter. It wakes up occasionally to take a sip of water and urinate before heading back to sleep.

### Raccoon – Answer: Torpor

To conserve energy when food is not available, the raccoon finds a den for the winter and curls up to sleep. It can make a den in a hollow tree, vacant burrow or even a building. Unlike other animals that enter torpor, the raccoon's body temperature doesn't drop. When the weather gets warmer, the raccoon will get up and wander around.

### Green Frog – Answer: Brumation

You might think that an aquatic frog would hide in the mud at the bottom of a pond during winter, but the green frog actually nestles among rocks in oxygen-rich cold water. This way, it can continue to breathe through its skin throughout the winter.

### Groundhog – Answer: Hibernation

Considered a true hibernator, the groundhog enjoys a deep sleep in its underground home from October until March. Its heart rate dips from 80 beats per minute to 5 beats per minute, and its body temperature can be as low as 3 °C!

### Black-capped Chickadee - Answer: Torpor (daily)

When the nights are extremely cold, this small bird stops shivering and reduces its body temperature by around 12 °C. It might even become unconscious to conserve energy. During the day, the black-capped chickadee stays warm and active by gathering high-energy food at feeders and fluffing up its feathers to reduce heat loss.

### Monarch Butterfly – Answer: Migration

Unlike other insects that hibernate, the monarch butterfly flies south to Mexico and California in the winter. Here, thousands of these beautiful butterflies gather to hang onto tree branches and live off their fat. In early spring, they start to feed, mate and journey north again.

### Wood Frog – Answer: Brumation

This type of land frog hides under piles of leaves to stay warm during the winter. Due to a high concentration of sugar in its blood, it doesn't turn into solid ice, but it does freeze. The frog's breathing, blood flow and heartbeat all stop. In spring, the animal thaws out and returns to normal!

### Black Bear – Answer: Torpor

In fall, the black bear finds a cozy den where it can curl up for a long nap. Its body temperature only drops slightly, but the bear's heart rate goes way down as it snoozes on and off through the winter, living on stored body fat. Unlike true hibernators, black bears can wake up and wander around during the winter.

### Snowshoe Hare – Answer: Adaptation

In the fall, the snowshoe hare transforms its thin brown fur coat into a thick winter white coat, which allows it to stay active and gather food in the winter. This crafty critter blends into its snowy surroundings and travels easily through deep snow due to its wide feet. When it's time to rest, the snowshoe hare snoozes in bushes and hollow logs.

### WILDLIFE IN WINTER

### Answer Key (Continued)

### Ruby-throated Hummingbird – Answer: Migration

This tiny nectar-loving bird flies nonstop to southern Mexico and throughout Central America during the winter months. Males go first in September, while females and younger ruby-throated hummingbirds take more time to fatten up before flying south in October.

### Woolly Bear Caterpillar – Answer: Diapause

As the temperature and humidity drops, this woolly wiggler's body prepares for winter by producing additional sugars. These act as a natural antifreeze, allowing the creature to hide under leaves and withstand temperatures well below 0 °C for weeks at a time. When spring arrives, the woolly bear caterpillar fills up on food and gains enough energy to form a cocoon and transform into an Isabella tiger moth in just two weeks.

### Beaver – Answer: Adaptation

The busy beaver spends several months preparing for winter. The beaver creates a pantry in its den, which it fills with tender sticks to nibble on during the colder months. Staying active all winter also means taking an occasional swim under the ice to snack on the roots of pond lilies and cattails.

### Arctic Fox – Answer: Adaptation

During the winter, the Arctic fox grows a heavy white coat to replace its thin brown summer fur. This new camouflage allows the creature to hunt more easily by blending into its surroundings.

### Arctic Tern – Answer: Migration

The Arctic tern flies from the Arctic to the Antarctic each year. These birds don't make the journey alone; instead, they travel in a small flock. It's a long trip, even if you have company—about 20,000 km each way!