

## **Hibernation and brumation**

By IASToppers | 2024-02-13 15:30:00



## **Hibernation and brumation**

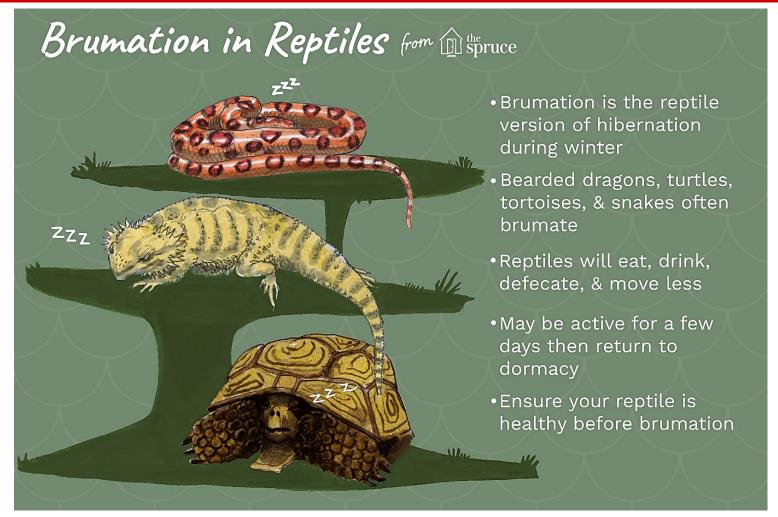
**Alligators** and other **cold-blooded animals** (e.g., snakes, turtles, salamanders, frogs, lizards) enter a state of **brumation** to survive winter.



[ref-npr.org]

### **About the Brumation:**

- The Brumation is a process similar to **hibernation** but involves **dormancy** due to changes in **temperature** and **light cycles**.
- It leads to lethargy, decreased **metabolism** and **body temperature**, and reduced activity and **food intake**.
- Unlike hibernating animals, they occasionally emerge to **drink water**, keeping their body temperature close to the **ambient temperature**.
- During winter, alligators brumate in water, exposing only their snouts for breathing, a behavior known as "icing behavior," and stay in "mud holes" without moving until temperatures rise.



[ref-spruce pets]

### About the Hibernation:

- The **Hibernation** is a state of **minimal activity** to conserve energy during extreme cold or scarce food availability, where the animals rely on **fat reserves**, and experience a drop-in **heart rate**, **body temperature**, and **cessation** of **eating** or **drinking**.
- Examples: bears, bats, and hedgehogs.

#### Hibernation vs Brumation:

# Hibernation



# **Brumation**

Hibernation is a period of dormancy or significantly lessened biological activity for warm-blooded animals.

Hibernating animals usually stay dormant for the entire period.

Hibernating animals have to eat increased amounts of food to sustain themselves.

Brumation is best understood as the cold blooded animal's equivalent of hibernation.

Brumating animals must wake up periodically to drink water occasionally to survive their dormant period.

Brumating animals usually eat less food before their dormancy begins.



[ref-linkedin]

## Other forms of dormancy:

- **Torpor**: A temporary and less intense form of hibernation.
- Estivation: To survive hot and dry conditions.
- Diapause: A halt in growth or reproduction in many insects during hibernation or estivation.