

Hibernation and brumation

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



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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**.

Brumation in Reptiles from the spruce



- Brumation is the reptile version of hibernation during winter
- Bearded dragons, turtles, tortoises, & snakes often brumate
- Reptiles will eat, drink, defecate, & move less
- May be active for a few days then return to dormacy
- Ensure your reptile is healthy before brumation

[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-linked in]

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.