

Field Dossier: Amphibian Biology

Frogs: Life on Land and Water



Engineered for a dual existence



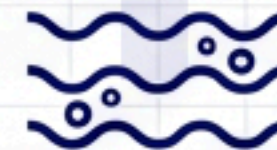
Kingdom: Animalia

Phylum: Chordata

Class: Amphibia



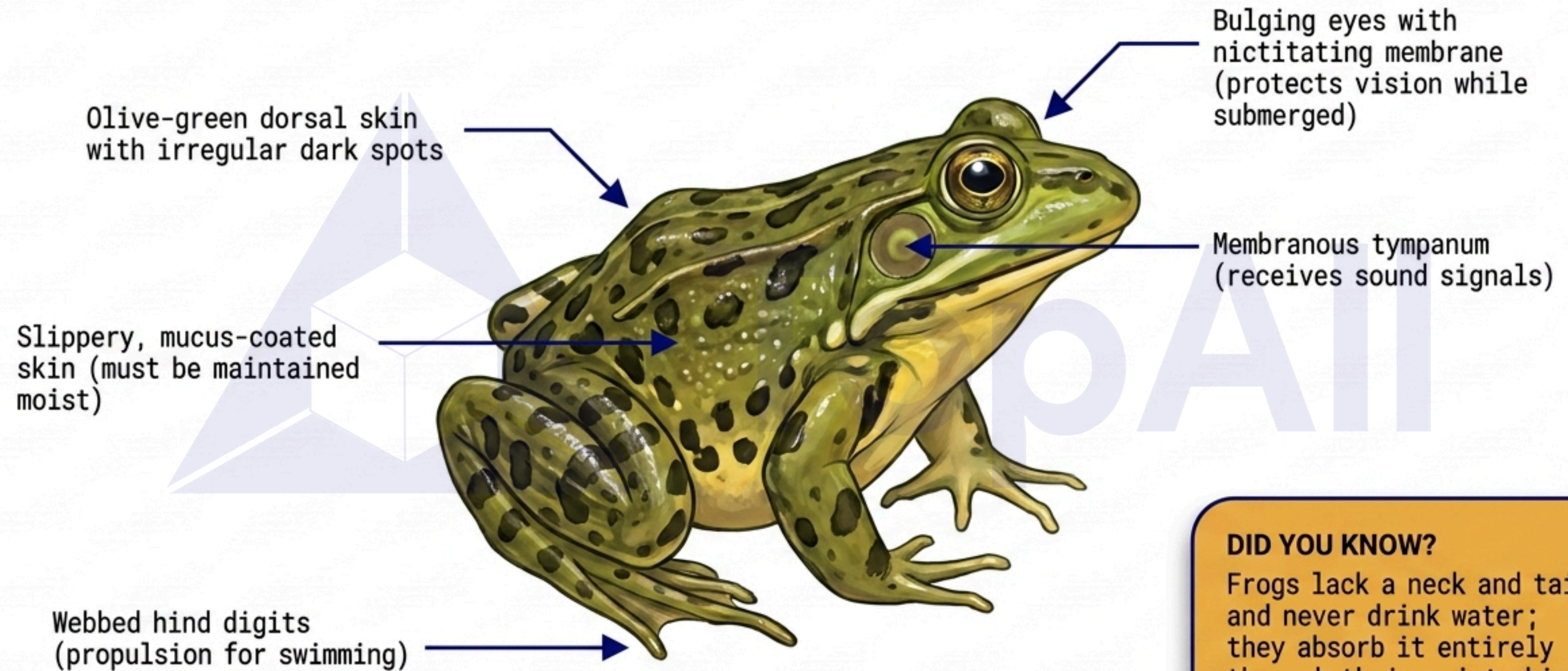
Amphi
Dual



Bios
Life

Amphibians are fundamentally defined by their evolutionary ability to thrive in both terrestrial and aquatic ecosystems.

Anatomical blueprint of *Rana tigrina*



DID YOU KNOW?

Frogs lack a neck and tail, and never drink water; they absorb it entirely through their moist skin.



**You've Learned the Theory.
Let's Test Them Now.**

$$E=mc^2$$



Turn theory into marks with **unlimited MCQs, smart analysis, and focused revision.**

Practice Now



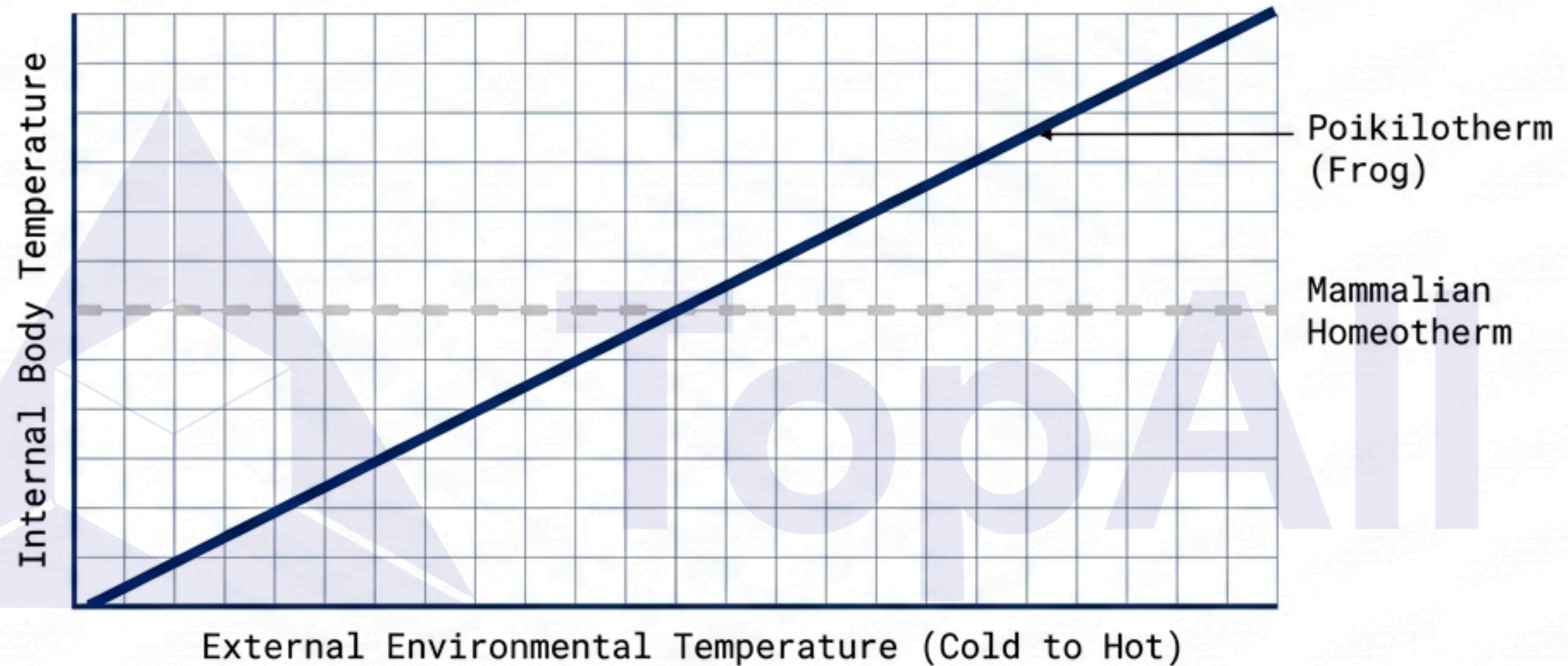
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Key Highlights

- » Free Study Material, Videos & Infographics
- » Push Your Limits with Level-Based Challenges
- » Climb the Leaderboard Among Fellow Aspirants
- » Practice Unlimited MCQs for NEET & JEE
- » Get Clear Explanations, Not Just Marks
- » Track Your Performance Smarter



Internal temperature mirrors the external environment



As **poikilotherms**, frogs lack a constant internal body temperature. This physiological reality forces them to rely on extreme behavioral and physical adaptations to survive external environmental fluctuations.

Dynamic visual adaptation to evade predators

Grasslands



CAMOUFLAGE:

The active ability to change color and hide from enemies within an immediate environment.

Dry Land



MIMICRY:

The broader biological concept of protective coloration.

Bypassing extreme seasons through deep dormancy

	AESTIVATION (Summer Sleep)	HIBERNATION (Winter Sleep)
Environmental Trigger	Extreme Heat	Extreme Cold
Action Taken	Shelters in deep, protective burrows.	
Physiological State	Dormant; relying entirely on cutaneous (skin) respiration.	

WARNING: Without these seasonal periods of deep burrowing, extreme surface temperatures would rapidly deplete the frog's moisture, resulting in fatal dehydration.

Amphibians as masters of ecological balance

1. Taxonomic Design

Evolved for dual terrestrial/aquatic life.

2. Thermal Regulation

Adapted to poikilothermic limitations.

3. Visual Mimicry

Engineered to evade predators across shifting terrains.

4. Seasonal Dormancy

Built to endure unsurvivable climate extremes.

Through this intricate web of anatomical and behavioral adaptations, frogs maintain crucial ecological balance—serving as an indispensable link in the food web by bridging the terrestrial and aquatic worlds.



You've Learned the Theory.

Now Let's Test It.

Reading notes gets you knowledge.

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Practice the moment you finish studying
Jump in while the concept is still fresh in your head

4.5L+
MCQs

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