Vast discovery of Amphibians in Western Ghats

What is the issue?

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- Of India’s 405 amphibians, 239 are found in the Western Ghats.
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- As much as 130 new amphibians, that include frogs, toads, caecilians (limbless amphibians) and salamanders, have been discovered in the Western Ghats since the year 2000.
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Why the sudden surge in new discoveries?

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- In the past, biologists mainly relied on physical characteristics to identify species.
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- This might have resulted in labelling wrongly.
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- Recent advances in science have ensured that detailed and comparative studies of frog genes, behaviour, calls and physical characteristics are possible.
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- Technology and modern gear has helped in observing them at night which is when amphibians are active.
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- Better access online to type specimens of previously described taxa in open access forums has also helped.
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How do these discoveries matter?

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- Distinguishing taxonomic status is the crucial first step to understanding amphibian ecology and evolution better.
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- It can be vital for conservation efforts.
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- It tells us how frogs adapt to their surroundings; and in turn helps us see how they can adapt to changing climates.
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- Studies to understand the effects of climate change on amphibian life-histories are vital.
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- Being restricted to small areas or ‘microhabitats’, even small changes in temperature could be dangerous for frogs.
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- It is also crucial to understand the role of frogs in the ecosystem.
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- High insect populations could decimate crop produce and affect humans directly, but frogs keep them under control.
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- They also have porous skin, which means that any pollution in the local ecosystem will affect them first.
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- Thus they are great bio-indicators and reflect the health of an ecosystem.
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Source: The Hindu

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