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Temperature-dependent sex determination, realized by hormonal dynamics with enzymatic reactions sensitive to ambient temperature

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## Highlights

- The egg incubation temperature determines sex of hatchlings in many reptiles.
- There are diverse patterns of temperature-dependent sex determination (TSD).
- We study hormonal dynamics with enzymatic reactions faster in a higher temperature.
- Enzymatic reactions following Arrhenius equation produce simple patterns of TSD.
- Complex patterns of TSD require some reactions not to follow Arrhenius equation.

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