

What makes us so?

This is no longer a question for philosophers. Evolutionary biologists also dwell upon it. Manuel Massot from Laboratoire Ecologie & Evolution, CNRS-UPMC, France, and Pedro Aragón from Departamento de Biogeografía y Cambio Global, Museo Nacional de Ciencias Naturales, Madrid, Spain, looked into how small life events can have long-term consequences. If you are a lizard, the future depends on the first meal you eat. Vibha Varshney decodes the findings published in *Current Biology* on July 3

ANIRBAN BORA / CSE

Massot and Aragón captured 120 pregnant common lizards, *Zootoca vivipara*. They brought them to the lab, where the reptiles gave birth to 569 young ones



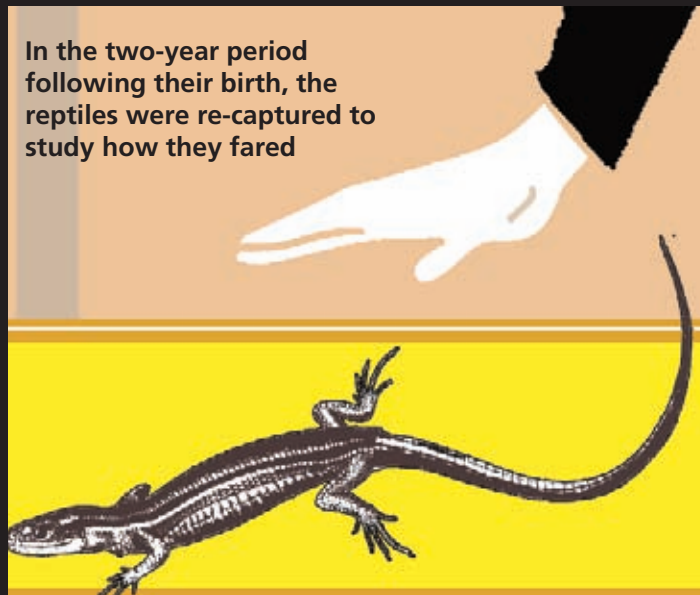
The researchers provided a meal to half of the newborns, two days after birth



All newborns were toe-clipped and three days after birth they were released in wild from where their mothers were captured



In the two-year period following their birth, the reptiles were re-captured to study how they fared



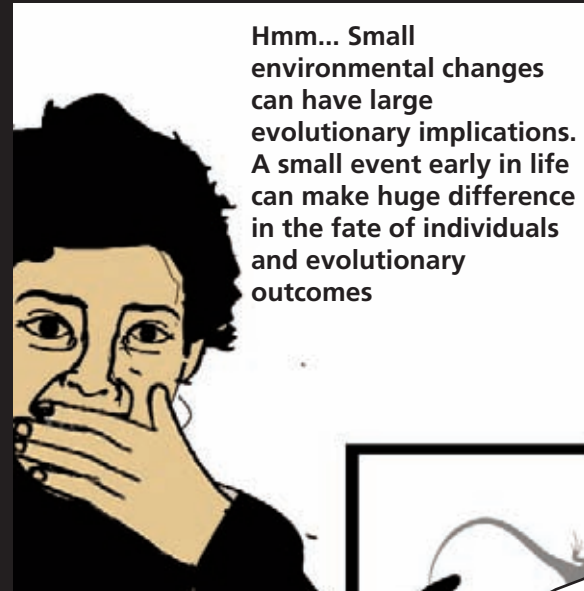
Lizards that were fed right after birth did not go far—they had no urgent need to look for food. They also had greater ability to evade capture than the ones who were not fed in the lab



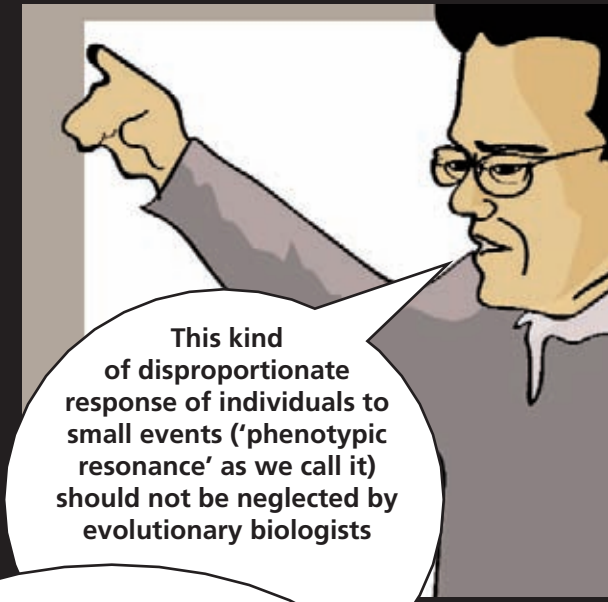
Lizards who did not eat early in life gave birth to larger litters two years later



Hmm... Small environmental changes can have large evolutionary implications. A small event early in life can make huge difference in the fate of individuals and evolutionary outcomes



This kind of disproportionate response of individuals to small events ('phenotypic resonance' as we call it) should not be neglected by evolutionary biologists



I would now like to search for other small key environmental variations that could have long-term impacts. For example, it is possible that some small thermal variations, due to climate change, at critical stages in life can have dramatic influence on species

