

## At 2C warmer, lizards eat less healthily: study

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Just two degrees of warming causes lizards to change their eating habits resulting in less healthy adult reptiles, according to research published

Wednesday.

Lizards generally live on a [diet](#) of insects, including plant-eaters, like crickets, as well as predators, such as spiders and beetles.

But when scientists observed lizards in a controlled environment 2 degrees Celsius hotter than usual, they found that the reptiles were eating more of the predatory insects.

Lead study author Elvire Bestion told AFP she was surprised by the results.

"The diet shift was linked to lower survival of adult lizards, however it is difficult to say why exactly that is," she wrote in an email.

The team found that while there were fewer predatory insects creeping around at a hotter temperature, the lizards still shifted their habits to prefer them over plant-eating insects.

"One of our hypotheses is that in [warmer climates](#), lizards needed more nutritious prey to fulfil their demands and shifted their diet towards eating more predatory invertebrates," Bestion said.

This increased competition among lizards for the preferred food.

Another notable finding is that as the lizards' diets changed, the microbiota in their guts became less diverse, possibly resulting in lower survival of the [lizards](#).

"The [gut microbiota](#) is linked to a lot of important functions in organisms, including digestion or immunity," said Bestion.

Crucially, the study, published in the *Proceedings of the Royal Society B*,

also suggests that a shift in reptile diets to predators might disrupt eating habits further up the [food chain](#).

"We show that the mechanisms of [climate](#) impacts are more complex than just an effect of temperature on one animal," said Bestion.

Two degrees Celsius is the warming cap aimed for in the 2015 Paris climate accord.

**More information:** Altered trophic interactions in warming climates: consequences of predator diet breadth and fitness, *Proceedings of the Royal Society B*, [rspb.royalsocietypublishing.org ... .1098/rspb.2019.2227](https://rspb.royalsocietypublishing.org/doi/10.1098/rspb.2019.2227)

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