

MailOnline

Lizards 'face extinction as global warming forces them to stay in the shade'

By [Daily Mail Reporter](#)

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Lizards are in danger of dying out on a large scale as rising global temperatures force them to spend more time staying cool in the shade and less time tending to basic needs like eating and mating.

If the planet continues to heat up at current rates, 20 per cent of all lizard species could become extinct by 2080, scientists warned in a research paper published yesterday.

Scientist Barry Sinervo, from the University of California, Santa Cruz, said: 'The numbers are actually pretty scary.'



Under threat: If the planet continues to heat up at current rates, 20 per cent of all lizard species could become extinct by 2080, scientists claim

He added: 'We've got to try to limit climate change impacts right now or we are sending a whole bunch of species into oblivion.'

A mass extinction of lizards, which eat insects and are eaten by birds, could have devastating effects up and down the food chain, but the extent is difficult to predict.

Dr Sinervo made models of lizards with thermal monitors and left them in the searing sun of southern Mexico to measure how the reptiles would react to temperatures at different altitudes.

Lizards bask in the sun not to relax but for self-preservation. As 'ectotherms' they depend on the external environment to control their body temperature.

Unlike mammals, when the reptiles overheat they cannot sweat or pant and they have to retreat to the shade or burrow under a rock to cool down.

This biological quirk has already led to the extinction of 5 per cent of lizard populations around the world, Dr Sinervo said, as

the creatures spend more time scrambling to find shade and less time doing what they need to do to survive.



Consequences: A mass extinction of lizards, which eat insects and are eaten by birds, could have devastating effects up and down the food chain

'Temperatures are rising too fast. Evolution can't keep up, said Jack Sites, a herpetologist at Brigham Young University who collaborated with Dr Sinervo's research.

Lizards come out during the day to warm up and use the time to find food needed to breed.

'The warming temperatures sort of eclipse that activity period... It gets too hot to forage and they have to go back,' Dr Sites said.

'So they don't die directly but they can't reproduce. It only takes a couple of generations of that and the population is going to spiral downward until it goes extinct.'

Elizabeth Bastiaans, a doctoral student in Dr Sinervo's lab, started studying lizards in a wilderness outside Mexico City near the Aztec pyramids of Teotihuacan where tourists huff and puff up hundreds of stairs in the blazing sun.

'I've been out there doing a lot of sampling over the past few years and you see the lizards in the morning and you see them in the evening. But in the hottest part of day, it's just too hot, you don't see them at all,' Ms Bastiaans said.

Some of the spiny lizards with blue bellies she studies went extinct at lower, warmer altitudes. Some moved to higher, cooler ground but, as temperatures continue to rise, that habitat is shrinking.

'If the climate continues to warm, they are going to get pushed off the top of the mountains,' Ms Bastiaans said. 'There is only so much mountain they can climb.'

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More likely due to man destroying habitat. Deforestation and such.

- David, cleethorpes uk, 16/5/2010 13:33

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"Why do people blindly insist that the earth is getting hotter?Its a scam! In fact true records show the earth has cooled slightly over the last ten years.

- paul james, connahs quay, 16/5/2010 7:14

I can't speak for anyone else, but I don't do anything 'blindly'. I've read dozens of scientific papers, but can't find a single one that shows the world hasn't warmed, or that man hasn't contributed to that warming.

Perhps you can point me these 'true records' and we can take it from there. I'm very happy to share my sources with you if you'd like to reda them.

- David, Cheltenham, England, 16/5/2010 11:03"

Some parts of the Earth have warmed and others have not. The average warming (if averaging temperatures across the globe is a valid process) has shown around 1 degree centigrade rise a CENTURY and that appears to be leveling. As the seasonal variation is hugely more claiming lizard or any extinction is just another a scare story.

- Ian W, Reading, UK, 16/5/2010 12:09

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If we are to believe the scientists then lizards were the first land animals - I do not really think that the marginal changes in the current climate will make any difference to lizards if indeed they have been around for more than 280 million years!

- Nick, Chatham, Kent, 16/5/2010 12:00

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- paul james, connahs quay, 16/5/2010 07:14

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can show you plenty of peer reviewed papers on possible alternative natual causes to the warming. Everything from alterations in solar activity to changes in upper level atmospheric water vapor, the weakening magnetic field that protects earth, etc...

- John, Dallas, Texas, 14/5/2010 19:14

Go on then.

- David, Cheltenham, England, 15/5/2010 09:53

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