

Climate to cause lesser of two weevils, study says

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Weevil larvae are pictured on July 9, 2014

Rising temperatures may shift the gender balance of Mediterranean weevils in favour of females, said a study Wednesday into a bizarre consequence of global warming.

Male weevils, its authors found, are more vulnerable to longer droughts.

After a summer drought, weevils rely on rain to soften the soil so they can burrow out of their cool, underground refuges.

Males of the *Curculio elephas* species tend to come out earlier than females, and when the rain is delayed, more females emerge, said the study in the journal *Royal Society Open Science*.

As diplomats met in Bonn to thrash out the wording of a world pact on curbing climate-altering [greenhouse gas emissions](#), the study served as a reminder that global warming would threaten more than low-lying islands, crops and water sources.

"Climate change affects animal distributions ranges, survival and reproductive performance.

However, there are other effects, less obvious, but relevant for population viability; the effects on sex ratio are among them," said a Royal Society press summary.

Previous studies had shown that [global warming](#) could affect embryonic sex determination in reptiles.

"In this paper we show, for the first time, that longer summer drought episodes, such as those predicted for the dry Mediterranean region under [climate change](#), may bias insect population [sex ratio](#)," wrote the study authors.

"We must consider not just the magnitude of the predicted changes in temperature and rainfall, but also the effects on their timing."

More information: Unexpected consequences of a drier world: evidence that delay in late summer rains biases the population sex ratio of an insect, *Royal Society Open Science*, [rsos.royalsocietypublishing.org ... /10.1098/rsos.150198](https://royalsocietypublishing.org/doi/10.1098/rsos.150198)

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