

An easier life for the giant squid

November 29 2019, by David Bradley

A cold-blood marine animal, such as the giant squid, *Architeuthis*, might be one of the few beneficiaries of global warming. Given that its axonic activity is limited by the environmental temperature at which it finds itself, even small increases can lead to a reduction in entropy making living fundamentally easier for the squid, according to research published in the *International Journal of Global Warming*.

Bahar Hazal Yalçinkaya of the Department of Genetics and Bioengineering at Yeditepe University, in Istanbul, Turkey, Mustafa Özilgen of the Department of Food Engineering there, and Bayram Yılmaz of the Department of Physiology at Yeditepe University Hospital, also in Istanbul, point out that there are several types of creature that have been shown to thrive in the face of global warming. For instance, there is evidence that many pest species, weeds, and parasites fare better in the face of climate change. And, in the [marine environment](#), it seems so do squid.

The team has looked at why this might be the case for the latter. Their thermodynamic analysis of information transmission in the squid giant axon, or nerve cell, shows a definitely lower increase in entropy when the environmental temperature rose. The team suggests this is reflected in an easier life for the [squid](#) at a higher temperature, offering an explanation as to why they might thrive under global warming conditions.

More information: Bahar Hazal Yalçinkaya et al. Thermodynamic assessment of information transmission in squid's giant axon may

explain why squid populations thrive with global warming, *International Journal of Global Warming* (2019). [DOI: 10.1504/IJGW.2019.103722](https://doi.org/10.1504/IJGW.2019.103722)

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