Report

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Rising pCO₂ in Freshwater Ecosystems Has the Potential to Negatively Affect Predator-Induced Defenses in Daphnia

Graphical Abstract



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In Brief

Ocean acidification has been well documented, but the effects of rising CO₂ on freshwater ecosystems are less understood. Weiss et al. report pCO₂-dependent freshwater acidification. Increased levels of pCO₂ affect sensory abilities of the microcrustacean *Daphnia* toward predator-specific chemical cues, limiting expression of inducible defenses.

Highlights

- 35-year monitoring data showed steady pCO₂ increase and pH decrease in four reservoirs
- Freshwater acidification affects inducible defenses in the keystone species *Daphnia*
- pCO₂ hampers neuronal kairomone transmission, preventing full defense expression
- Increased pCO₂, rather than reduced pH, impairs predator perception in *Daphnia*

Weiss et al., 2018, Current Biology 28, 1–6 January 22, 2018 © 2017 Elsevier Ltd. https://doi.org/10.1016/j.cub.2017.12.022

