

# Temperature may affect pollen color

January 5 2018

---

While studies on flowers' petal-color variation abound, new research looks at differences in the performance of pollen under varied environmental conditions based on its color.

In the *New Phytologist* study of the North American herb *Campanula americana*, investigators found that differential heat tolerance among [pollen](#) color variants could contribute to geographic variation in pollen pigmentation.

The study revealed that [western populations](#) have darker purple pollen than eastern populations where white to light-purple pollen is more common. Western populations also experience more extreme high temperatures and elevated UV-B irradiance. Experimental manipulation of [temperature](#) and UV revealed that dark pollen outperforms light pollen under higher temperature, but not elevated UV.

"In light of global change, temperature stress could be an increasingly important selective agent on pollen pigmentation" said co-author Dr. Matthew Koski, of the University of Virginia.

**More information:** Matthew H. Koski et al, Geographic variation in pollen color is associated with temperature stress, *New Phytologist* (2018). [DOI: 10.1111/nph.14961](https://doi.org/10.1111/nph.14961)

Provided by Wiley

Citation: Temperature may affect pollen color (2018, January 5) retrieved 25 April 2024 from <https://phys.org/news/2018-01-temperature-affect-pollen.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.