

# Flowers that point to the sky may attract more moth pollinators

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Plants that have flowers that point towards the sky may be better at attracting moth pollinators than plants that have 'shy' flowers that point sideways.

Researchers discovered this when they studied two species: *Zaluzianskya natalensis*, whose flowers point upwards, and *Zaluzianskya microsiphon*, whose flowers point sideways. Hawkmoths are the main [pollinators](#) of *Z. natalensis* flowers and showed a preference for its flowers. Long-tongued flies are the main pollinators of *Z. microsiphon*.

While *Z. natalensis* has a stronger scent to pollinators, artificially adding more scent to *Z. microsiphon* flowers had no effect on the numbers of [hawkmoths](#) that visited. Also, manipulating the flowers of *Z. microsiphon* to point upwards increased their appeal to hawkmoths, while manipulating the flowers of *Z. natalensis* to point sideways reduced their appeal. The white portion of the petals was more visible when flowers pointed upward.

"The results show that orientation of [flowers](#) can result in [reproductive isolation](#) between closely related species," said Dr. Diane Campbell, author of the *New Phytologist* study. Reproductive isolation refers to a situation where different species may live in the same area, but their properties prevent them from interbreeding.

**More information:** Diane R. Campbell et al. Reproductive isolation between species: the influence of volatiles and flower orientation on

hawkmoth foraging choices , *New Phytologist* (2015). [DOI: 10.1111/nph.13746](https://doi.org/10.1111/nph.13746)

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