Flowers use physics to attract pollinators

December 5 2016

A new review indicates that flowers may be able to manipulate the laws of physics, by playing with light, using mechanical tricks, and harnessing electrostatic forces to attract pollinators. Credit: *New Phytologist*

A new review indicates that flowers may be able to manipulate the laws of physics, by playing with light, using mechanical tricks, and harnessing electrostatic forces to attract pollinators.

The *New Phytologist* review describes the latest advances in our understanding of how plants use their flowers to ensure reproductive success. Flowers use light to attract pollinators by creating colour using microscopic structures or chemical effects. Using gravity to their advantage, petals cause pollinators to slip or grip when they land on a flower, ensuring that they transfer pollen without taking too much of the sugary nectar reward. Plants may even alter their electrical fields to influence pollinator visits.

"It is surprising to many people that plants use the laws of physics to their advantage in attracting pollinators, but of course it makes sense that evolution has used all the available opportunities to enhance plant fitness," said Dr. Beverley Glover, co-author of the review.

More information: Edwige Moyroud et al, The physics of pollinator attraction, *New Phytologist* (2016). DOI: 10.1111/nph.14312

Provided by Wiley