

Artificial light at night may disrupt firefly mating

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New research published in *Insect Conservation and Diversity* indicates that artificial light at night likely interferes with the courtship and mating of bioluminescent fireflies.

For the study, investigators exposed courting pairs of fireflies to five colors of light at two intensities, and they recorded changes in the rate, brightness, and pattern of male advertisement flashes, as well as how often females responded.

All artificial light treatments significantly suppressed [courtship](#) activity, but bright amber light had the greatest impact on female receptivity. This suggests that artificial lights that are closest in color to firefly bioluminescence may be the most disruptive to firefly courtship.

"It's definitely concerning, because many ecologically-minded people are pushing the use of amber lights to safely light up streets and parks. But we're finding that no color of [light](#) is safe for fireflies—they need the dark," said co-author Avalon C.S. Owens, a Ph.D. candidate at Tufts University.

The article is part of the journal's Special Issue: *Impacts of artificial lighting at night on insect conservation*.

More information: Avalon C.S. Owens et al, Narrow-spectrum artificial light silences female fireflies (Coleoptera: Lampyridae), *Insect Conservation and Diversity* (2021). [DOI: 10.1111/icad.12487](https://doi.org/10.1111/icad.12487)

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