

Artificial light is dangerous for insects, say scientists

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Harder



Everyone knows that light attracts insects. In prehistoric times, our ancestors questioned why winged insects buzzed around fire. An old saying describes this attraction as being, "like a moth to a flame". However, a recent study dispels the long-believed notion that insects head towards light because they like it. Biologists at Imperial College London have reported that insects are drawn to light because it helps with their orientation when in flight. The scientists said artificial light actually disorients nocturnal bugs like moths and mosquitos, often to fatal ends. Jamie Theobald, co-author of the study, said all our speculations about why insects fly toward light "might have been wrong".

The scientists conducted their research in a rainforest in Costa Rica. They installed artificial lights under the canopy and observed the creatures' flying behavior. Insects usually navigate by the moon to fly in straight lines. However, around the artificial lights, the bugs became confused and made arcs and erratic patterns of flight. An entomologist said: "Natural sky light...helps maintain proper flight.... Artificial sources... can produce continuous steering around the light and trap an insect." This explains why so many insects fly to their death into bug zappers. Artificial light adversely affects an insect's ability to find a mate, forage for food, and defend itself against predators.

Sources: imperial.ac.uk / gizmodo.com / nature.com / breakingnewsenglish.com

DISCUSS

"We should turn off lights at night to help nocturnal insects survive." Do you agree or disagree? Why (not)?

True / False

1. In prehistoric times, our ancestors buzzed around fires. T / F
2. There is a saying in English that goes, "Like a flame to a moth". T / F
3. Scientists say insects do not fly to light because they like the light. T / F
4. Scientists say artificial light can be deadly for nocturnal insects. T / F
5. Scientists put artificial lights in a tent in a Costa Rica rainforest. T / F
6. Nocturnal insects use the sun to navigate while flying. T / F
7. The light from bug zappers entices bugs to their death. T / F
8. Artificial light makes it difficult for insects to protect themselves from predators. T / F

Synonym Match

(The words in bold are from the news article.)

- | | |
|------------------------|------------------|
| 1. ancestors | a. carried out |
| 2. dispels | b. unpredictable |
| 3. notion | c. theorizing |
| 4. fatal | d. hunt |
| 5. speculations | e. belief |
| 6. conducted | f. negatively |
| 7. artificial | g. predecessors |
| 8. erratic | h. synthetic |
| 9. adversely | i. dismisses |
| 10. forage | j. deadly |

DISCUSS MORE

- 1) What are the good and bad things about artificial light?
- 2) Do you prefer artificial or natural light?
- 3) How bad is light pollution?
- 4) When was the last time you were confused?
- 5) What do you think of bug zappers?
- 6) What do you think of moths?
- 7) How does artificial light adversely affect nocturnal insects?
- 8) What can we do to help nocturnal insects?
- 9) What nocturnal creatures do you like?
- 10) What questions would you like to ask the researchers?

Speaking – Nocturnal

Which is the best thing about being a night owl? Rank these items from 1 (top) to 8 (bottom).

- ___ Life is quieter
- ___ Get more work done
- ___ Empty streets
- ___ Off-peak electricity
- ___ No sunburn
- ___ Avoid rush hours
- ___ Seeing the stars
- ___ Avoid people