

Are lightning bugs a threatened species? No one knows

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Credit: Unsplash/CC0 Public Domain

They glow like fading stars and have made memories of shimmering summertime backyards for generations.

Whether called a firefly, glowworm, or Latin—lampyridae—lightning bugs are part of American life, particularly in Southern culture. They've been sung about by Taylor Swift and flown into the prose of William Faulkner.

And while 40% of the world's insect [species](#) are facing extinction, no one knows how healthy the firefly species are, said Virginia Tech entomologist Eric Day. There just isn't enough data. Without more well-funded, [long-term studies](#), Day said, it is impossible to determine the species' health or to categorize them as threatened, endangered or robust.

Out of the approximately 130 species of fireflies in North America, Virginia has close to 30.

"There's none that I know of that are endangered in Virginia," Day said. "There are a lot of them that the numbers are low."

For many Virginia species, there's little to no preexisting data.

"So, that's really the missing factor, that if we find low numbers, we don't really know what that means because there are no previous studies of it."

Most scientific literature lists lightning bugs as DD: data deficient.

"I don't have the funding to do firefly research. I would love to have that kind of a grant," Day said. "But that's not where the money is."

Anecdotal evidence suggests, however, that [firefly](#) numbers have fallen in developed areas and remain in better shape in more rural environments. Fireflies will always be more attracted to open fields, especially those near rivers or streams. The flies are carnivorous and depend on healthy ecosystems for good hunting. They spend the early

part of their lives with their legs on the ground, eating other insects and sometimes, even, slugs.

The males take to the air in mass after evening temperatures rise above 70 degrees.

"When they're flashing, they kind of only have one thing on their mind: Boy meets girl."

Every lightning bug species has a unique flash pattern. The males will flash while in flight and the females will respond with the same pattern from the ground.

Faulkner mentioned the bugs in his 1957 novel "The Town:"

"Then, as though at signal, the fireflies—lightning-bugs of the Mississippi child's vernacular—myriad and frenetic, random and frantic, pulsing; not questing, not quiring, but choiring as if they were tiny incessant appeaseless voices, cries, words."

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