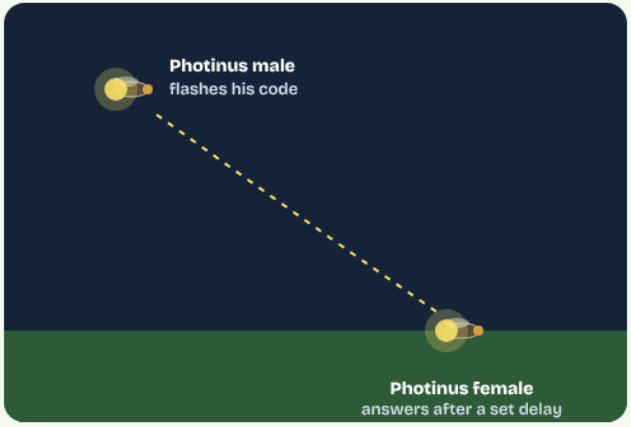
That is why

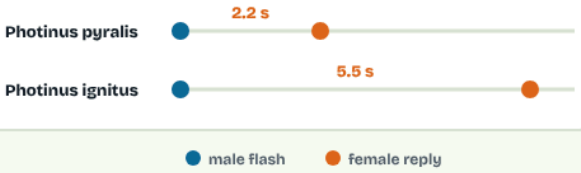
Why do some fireflies fake love signals?

Photuris females copy the reply of another species' females, lure the males in, eat them, and take their poison.

A A flash-and-reply code

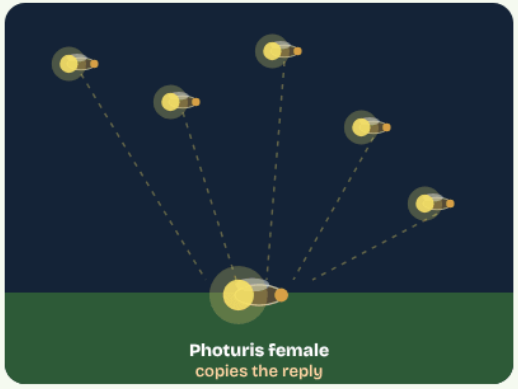


Fake replies recorded in 1965, by target species:



The right reply, after the right pause, tells a male that a female of his kind is waiting.

B The fake reply



One night, one female (1965)

In half an hour she answered 12 passing males. All were at least partly drawn in; 8 came within 1 m. She dimmed her flashes as they got close. The last one landed about 7 cm away, and she ate him.

In one species, Photuris versicolor, females answer their own males until they mate, then switch to luring Photinus males.

C Stealing the poison

1 Lucibufagins

Defensive steroids in Photinus blood. The name means "light" plus "toad."

2 Photuris lack them

They get them only by eating Photinus males.

3 A shield

Without them, Photuris were eaten by jumping spiders. They also put off birds.

A later study found it ends up in her eggs, where it helps protect them.

Copy the reply, catch the male, steal his chemical shield.

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