Fireflies are DISAPPEARING

HERE’S WHY

There are over 2,000 species of fireflies, which live in all but a few desert spots. Researchers say this is the first major review of the global status of fireflies, required under an agreement in the Nagoya Protocol.

Multiple threats to fireflies act in combination, including habitat loss due to development, artificial light pollution, which can interfere with their communication and mate-seeking behaviors, and pollution, which can harm their aquatic stages. According to the report, fireflies from the Philippines are at risk of extinction due to habitat loss caused by large-scale tourism. In Japan, the Japanese moonlight firefly is at risk from the commercial importation of lights for the sake of aesthetics.

The report is “the very first time that we’ve gathered data on fireflies from across the globe,” said James Hanken, a Tufts University biologist and co-author of the study.

**THREATS FROM...**

*Habitat Loss*

For example, in Japan, the decision to drain and molting, the Malaysian firefly, Pteroptyx tener, lives in rainforests. In Japan, the Japanese moonlight firefly is at risk from the commercial importation of lights for the sake of aesthetics.

**Light Pollution**

This is the leading threat in East Asia and South America, artificial light was seen as the biggest menace to the world’s luminous beetles. The study revealed they lack the bioluminescent properties that make them stand out during their larval phase. Reduced visibility is a major concern for species that are adapted to the low-light conditions of their habitat.

**Exposure to Pesticides**

The survey found that fireflies are being decimated by commodity and crop destruction. Researchers say “the uncontrolled and intensive use of pesticides are designed to kill pests, they don’t affect beneficial

**Pop Quiz IDENTIFY THESE SPECIES**

A recent article in the magazine Science shows that, in terms of national averages, Thailand is the world’s state-targets danger of plastic. Adjusting these figures for coastal populations and coral reefs, Thailand leads the world.

A black-tipped turtle north of Bangkok, a moon jellyfish in the Maldives, and a group of fireflies in California are all examples of the plastic pollution crisis. Each year, millions of pounds of plastic end up in the world’s oceans, often making their way up the food chain and into marine habitats.

**How do They Glow?**

Fireflies “light up” as they produce a chemical reaction inside their thorax, which generates light. The process is called bioluminescence.

**How Can You Keep Them Safe?**

In your home near a firefly habitat? Do you want to figure out how you can protect this iconic bug? Here are some ways to help:

- Avoid or prevent the use of chemicals or near firefly habitats.
- Leave some worms, snails, and insects to the fireflies to feed on.
- Turn off all lights.
- Provide dirt, ground cover, grasses, and shrubs for them to lurk in.
- Don’t try to capture them in glass jars. Report those who do.

**How Do They Find Their Mates?**

Fireflies fly as far as a quarter-mile to find their matches. They are attracted to the male’s light, which is a defense mechanism against predators.

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