

**DID YOU
KNOW?**

Sun's radiation decides the dragonflies you see

With their shimmering, translucent wings, slender and vibrant bodies and huge compound eyes, dragonflies stand out in the insect world for their beauty. As voracious wetland predators living around ponds, lakes, rivers and streams, they feed on many insects, including mosquitoes, and help maintain a balance in the ecosystem. Over 3000 species of dragonflies are found worldwide on all continents except Antarctica. But what determines their distribution? According to a recent study, the sun's radiation and the resulting temperature may affect what dragonflies you see, when and where.

When the sun's rays aren't too intense in the spring and autumn, dragonflies with dark-coloured wings are more likely to hover around, while those with light-coloured wings are mostly seen flying in the summer. As dark-coloured wings absorb more heat than light-coloured wings, this adaptation helps the insects regulate their body temperature. Unlike warm-blooded humans, insects cannot maintain a constant body temperature.

Although individual dragonflies don't change their colours based on the season, the average colouration of all dragonflies flying at any one time seems to be adapted to the solar radiation at the time. Apart from seasonal variations, solar radiation also determines the distribution of dragonflies across the globe—dragonflies with lighter body and wing colours are primarily found in the warmer tropics, while those with dark-coloured wings and bodies are found in the cooler temperate regions.



In 2022, IUCN's first global assessment of dragonflies and their closely related cousins, the damselflies, found that 16% of these insect species are at risk of extinction, mainly because wetlands worldwide are being disturbed. In addition to this, the effect of climate change can impact the amount of solar radiation Earth receives, and there are more unknowns about the future of these beautiful insects. Where will the future take them? Hopefully, not towards extinction.

- SPOORTHY RAMAN