

Researchers identify new species of dragonfly in Brazil

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New species of dragonfly named *Erythrodiplax ana* has brown spots on its wingtips and a waxy body coating. Credit: Rhainer Guillermo Ferreira

A new species of dragonfly with a brown spot on each of its four wingtips and a bluish waxy body coating has been described by Brazilian researchers in an article published in the scientific journal *Zootaxa*. Found in 2011 near a spring on the Itororó Ecological Reserve in Uberlândia, Minas Gerais State, Brazil, it has been named *Erythrodiplax ana*.

The [new species](#) was identified during the PhD research of Rhainer Guillermo Ferreira, that was supported by a scholarship from FAPESP

during his postdoctoral research.

"The discovery is important above all because of the site where the species was found," said Ferreira, first author of the article and assistant professor at the Federal University of São Carlos's Center for Biological & Health Sciences (CCBS-UFSCar). "The nature reserve contains a vereda, a palm swamp wetland that provides part of Uberlândia's water supply. The discovery of a new species in an urban area and with a habitat linked to a spring used to draw off water shows how little we know of Brazil's biodiversity," he told.

He added that dragonflies are natural predators of flies and important environmental indicators. "When you find these insects in the wild near a watercourse, it means the water's good," he said.

Between 2011 and 2014, the researchers compared the blue dragonfly's morphology with those of 57 other species in the same genus. At the end of the period, they confirmed its status as a new species and began working on a description.

A combination of two traits distinguishes *E. ana* from other species in the genus. Particularly important is that the male's body is covered with bluish wax. The female does not produce wax and is ochraceous (yellowish-orange). "Males of several species in this genus produce wax," Ferreira said. "Some have wax only on their wings, which are bright blue."

Another key trait of *E. ana* is the brown spot on each wingtip, which is rare in this genus.

Ferreira is investigating whether the wax serves as a kind of sunscreen to protect the male's body from solar radiation since the insect is exposed to sunlight for many hours every day. Previous studies evaluated the

properties of the wax found in other species and concluded that the blue coloring serves to reflect the sun's ultraviolet rays, he noted.

The researchers believe *E. ana* is characteristic of wetlands in the Cerrado (savanna) biome. Besides the Uberlândia reserve, it was also found by the group in Chapada dos Guimarães National Park, Mato Grosso State.

Provided by FAPESP

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