Study finds female damselflies prefer 'hot' males

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Researchers from the University of Sheffield have found that female damselflies prefer hot males.

The study, which was published in the journal Behavioral Ecology *and Sociobiology*, found that hot male damselflies, who have warmed their bodies in the sun, are more attractive to their female counterparts.

Males of this species show elaborate courtship displays that involve high frequency wing-beats directed toward a potential female mate. Previous studies suggest that a female's choice of mate is based on aspects of a male's courtship display, although it is unclear whether the courtship display varies between males or is influenced by environmental factors.

The research used two new technologies - thermographic imaging and high-speed digital videography - to assess the courtship rituals of the damselflies.

The findings revealed that males that had basked in the sun had warmer bodies and were more attractive to the females: they were therefore more likely to copulate than colder males. The study also discovered that females benefit from mating with warmer males, as they have access to the warmest territories, which provides the perfect location for the females to lay their eggs.

Professor Michael Siva-Jothy, one of the authors of the study from the University of Sheffield's Department of Animal and Plant Sciences,

said: "This research shows that female mating preference can change over a very short period: a male can become attractive when his territory is in the sunshine but become a wimp when his perch is in the shade."

Provided by University of Sheffield