

Darker wings for monarch butterflies mean better flight

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For monarch butterflies, redder wings are correlated with better flight performance, according to research published July 25 in the open access journal *PLoS ONE*.

Previous work has shown that monarch coloring is intended to warn their predators about their bitter taste and toxicity, and that migratory butterflies are darker colored than non-migratory ones, suggesting an association between darker color and increased fitness. The current work, led by Andrew Davis of the University of Georgia, provides further evidence for this association. The researchers tested 121 captive monarchs in an apparatus called a tethered flight mill, where they can quantify butterfly flight speed, duration, and distance, and found that those with darker orange wings overall flew longer distances than those with lighter wings.

"Butterfly researchers don't often look closely at <u>color variation</u> between individuals of the same species. The results of this project will pave the way for a new line of inquiry into the significance of butterfly wing color."

More information: Davis AK, Chi J, Bradley C, Altizer S (2012) The Redder the Better: Wing Color Predicts Flight Performance in Monarch Butterflies. *PLoS ONE* 7(7): e41323. <u>doi:10.1371/journal.pone.0041323</u>



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