**The Relative Size of Syrphid Mimics to Their Models and its Implications for the Evolution of Mimicry**

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Many hoverfly (Syrphidae) species are Batesian mimics of stinging Hymenoptera, although their degree of similarity can vary considerably. Some species are considered excellent mimics, while others are considered very poor mimics. Previous research has shown that larger mimics are often better mimics, possibly because there is less selection for mimetic fidelity in smaller, less profitable prey (Penney et al., 2012). However, predators can also use body size to discriminate between mimics and their models. So, an alternative hypothesis is that mimetic fidelity varies with body size because larger mimics are less distinguishable in size from their hymenopteran models, which tend to be large. To compare these competing hypotheses, we tested whether colour pattern similarity was better explained by the absolute body size of the mimic or by the relative size of the mimic compared to the model. Mimetic fidelity was assessed by human ranking for 154 mimic-model pairs and the discriminability of these pairs was determined by measuring the intertegular distance of both the Syrphid mimic and Hymenopteran model. Body size is often overlooked as a discriminative trait, but if a mimic is distinguishable in size from a model, there may be little selection to further improve its fidelity.