

Harmful behavior mediated by parasites and pathogens: a mathematical model and three experimental examples

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Arguably, one of the most conflicting associations in the natural world is that between a parasite or pathogen and its host. Parasites or pathogens (henceforth used interchangeably) and their hosts are expected to have conflicting interests, simply because parasite reproduction and transmission are performed at the expense of the host's fitness. However, this may not always be the case. In fact, infected hosts can use their parasites as biological weapons to harm susceptible non-kin hosts, and increase their own relative fitness. What are the constraints to such harmful behavior mediated by parasites? In this seminar, I will present a mathematical model to check for constraints to this hypothesis and then some experimental examples obtained in the laboratory.

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FCUL (Building C2), 12h00-13h00, room 2.3.13

