

ABSTRACT

Universität Hamburg, Fachbereich Biologie
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Worms and the swarm: the how and the why of nematode collective behaviour

Host: Jutta Schneider/Baris Tursun

VC. elegans has recently emerged as a model for several striking collective behaviours such as aggregation, wurmuration, towering, and network formation. Combining the powerful experimental accessibility of this major lab model organism with the knowledge that collective phenomena are widespread and highly relevant for many nematodes, I exploit different nematode species to understand how and why they behave collectively. I seek to dissect the proximate mechanisms of nematode collective behaviour using tools from quantitative behavior and modelling, as well as integrating fitness measurements to demonstrate the function of collective behaviour in ecologically relevant nematode groups.