

## Project SOCEVOL

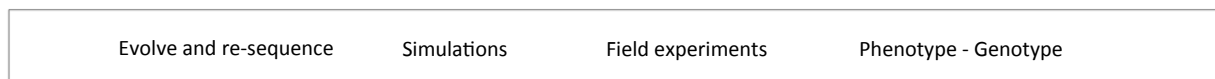
# How social Interactions affect evolutionary processes

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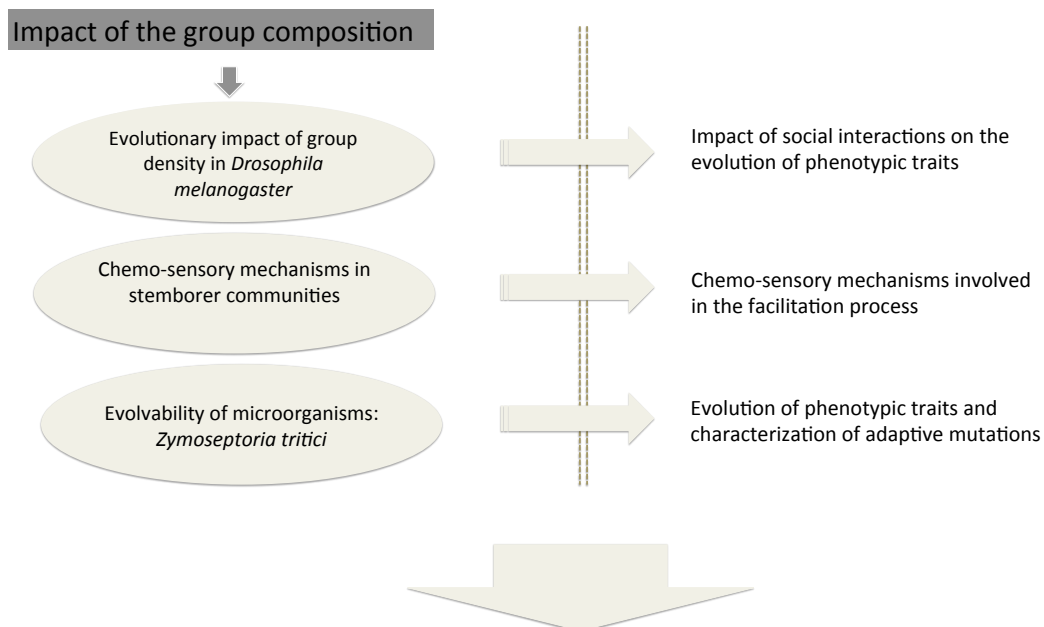
Living organisms interact not only with the abiotic environment but also with organisms of their own species. These interactions may be metabolic, chemical or behavioral. The specific **social context** an individual experiences may vary at both small and large temporal and/or geographical scales. Understanding how being in a group impacts individual phenotype is critical for **understanding how phenotypes evolve** because the existence of non-additive group effects alters the level of selection that is most important (group *versus* individual), in driving phenotypic evolution, even when selection at multiple levels acts in similar directions. Understanding how group composition affects group outcome may provide key information on the maintenance of phenotypic and genotypic variation (in groups) of the species. Despite extensive theoretical considerations, the group composition as an agent of selection shaping individual fitness and as an emergent property of the individual phenotypes has rarely been considered in empirical studies.

The present project aims at understanding how the group phenotypic and genotypic composition can impact processes from individual fitness to population demography and evolution, and be a major source of diversity maintenance. The project gathers scientists from two labs around this shared topic and addresses different questions on the impact of group composition on phenotype and evolutionary processes using a large diversity of biological systems differing by their level of sociality and experimental approaches.

### Materials and Methods



### Expected results



Further understanding in the BASC community  
 Discussion group and workshop on Experimental Evolution