



Colorado
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Salle de réunion

IS EVOLUTION A DRIVER OR PASSENGER OF BIOLOGICAL INVASIONS?

**EMPIRICAL DATA FROM EXPERIMENTALLY INVADING
TRIBOLIUM POPULATIONS, AND OPEN QUESTIONS FOR
HOW TO PROCEED WITH POSSIBLE GENOMIC ANALYSES**

par

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📍 Many introduced and invasive populations have been shown to adapt to their novel environment. A crucial question is, Is that adaptation a driver of invasions, or simply an outcome? I have taken an experimental approach to this question, and will share data from two different studies using *Tribolium castaneum*.

📍 In one, the introduced environment posed a challenge, and adaptation significantly increased population size and invasion speed.

📍 In the other, we honed in on the role of the evolution of population structure across an expansion front, and found evolved differences in dispersal tendency and growth rate, and importantly, more variation in expansion speed in landscapes with population structure than without.

📍 Thus, evolution drives the outcome of biological invasions, and is not merely a passenger in the process. After presenting the experimental results, I hope for feedback on approaches to collecting and analyzing genomic data to evaluate signals of adaptation and/or surfing of deleterious alleles...