
How general is social evolution?

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Abstract

Traditional Session

Session: Microbes as model systems (Maureen O'Malley, Jessica Bolker, Michael Travisano, Gregory Velicer)

How general is social evolution?

Social microbes have been promoted in recent years as powerful model systems for empirical investigations into basic principles of social evolution. Microbes exhibit many traits that are demonstrably or putatively social in character and which range in complexity from the simple production of individual extracellular compounds that act as public goods (or semi-private goods in the case of compounds that remain attached to the producing cell's surface) to genetically and behaviorally complex traits such as aggregative multicellular fruiting body development. The reach and limits of microbes as models for social evolution in animals will be considered, particularly with reference to the myxobacteria, which exhibit some of the most sophisticated cooperative traits found among prokaryotes.

*Speaker