## BayCEER Kolloquium

Lectures in Ecology and Environmental Research



Summer 2024





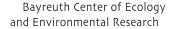
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## Survival, ,dormancy', and resuscitation of microorganisms in water-limited environments: insights from coastal salt flats and desert soil crusts

One of the most fascinating features of microorganisms is their ability to survive extremely hostile conditions such as desiccation, UV radiation, hypersalinity, and prolonged periods of starvation. The term 'dormancy' is often used to describe the state of reduced metabolic activity in which microorganisms endure unfavourable conditions. Few specific microbial taxa are known to form dedicated resting stages, e.g. spores or cysts. However, physiological and metabolic strategies associated with 'dormancy' and survival can vary dramatically between different habitats and microbial species. For most microbial taxa abundant in natural ecosystems such survival mechanisms remain unknown. In arid regions, microbial activity in habitats like surface soils or tidal flats can suddenly become limited by one critical parameter – water availability. I will present two studies investigating the functional potential and activity of microorganisms inhabiting two water-limited surface environments, both exposed to high UV radiation and heat.











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The lectures are an interdisciplinary platform for students, junior and senior scientists.

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