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Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

The Ecology, Evolution, Environment & Behavior UZH / ETH Joint Seminar Series

The problem of time in climate change ecology

Speaker: **Dr. Elizabeth Wolkovich**
Faculty of Forestry, University of British Columbia, Vancouver,
Canada
<https://temporalecology.org/>

Date/Time: Tuesday, 2024-05-07
16:15 to 17:15

Place: CHN-C-14/ETH Zentrum CHN
Universitätstrasse 16; 8006 Zürich

Access: only intern

Host: Janneke Hille Ris Lambers, ETH

Abstract:

Forty years ago, ecology became increasingly focused on spatial processes, as researchers realized how fundamentally habitat loss and fragmentation reshapes populations and communities. A generation later, with spatial ecology firmly established as a cross-disciplinary, multi-scale field, anthropogenic climate change has forced ecology to revisit the importance of time. As warming stretches growing seasons around the globe, populations, communities and ecosystems are responding. In this talk, I outline two major challenges of temporal ecology with anthropogenic warming, stretched time and accelerated time, with a focus on plant phenology. I first show how longer growing seasons may reassemble communities using examples from invasion biology and building to a more general theory. Next, I show how warming may make biological processes that are dependent on thresholds appear to slow as warming continues. This is because warming accelerates biological time while calendar time stands still.

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