Stabilizing Mechanisms of Artificial Ecological Communities under Environmental and Chemical Stress

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13.08.2020

This is the abstract

Introduction

Motivation

Recent Findings

(Gessner and Tlili 2016) context dependency in stress-effect analyses has until 2016 been under researched.

check research of gardeström et al (2016). They made a research of communities in streams and the dependence of outcome on the contamination legacy. This may be important for the second part of the current nanocosm experiment repeated contamination with low dose pesticide after initial contamination with esfenvalerate of different dose

(Wood and Goulson 2017) show how neonicotinoides are flushed into rivers after peak rain events. This shows that repeated pulse exposures are a much more meaningful approach to testing the effect of pesticides in contrast to continuous exposure, which practically does not take place. It would be interesting to have a small background exposure present at all times.

Assumptions

(1) Communities converge towards a cyclic attractor after initialization.
(2) Communities can recover from small perturbations but ecosystems will change after larger perturbations occurred

Research Questions

Hypotheses

(1)

Method

References

Gessner, Mark O., and Ahmed Tlili. 2016. "Fostering integration of freshwater ecology with ecotoxicology." *Freshwater Biology* 61 (12): 1991–2001. https://doi.org/10.1111/fwb.12852.

Wood, Thomas James, and Dave Goulson. 2017. "The environmental risks of neonicotinoid pesticides: a review of the evidence post 2013." *Environmental science and pollution research international* 24 (21): 17285–17325. https://doi.org/10.1007/s11356-017-9240-x.