Kolloquium

BIODIVERSITÄT

The multifaceted nature of plankton dynamics:

from cell cycles to meta-communities

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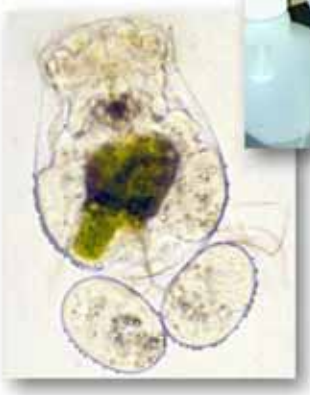
I present three experimental microcosm studies on the dynamics of plankton model systems. In each case the goal was to gain a better understanding of the dynamics by identifying intrinsic and external key mechanisms. The three model systems represent strongly differing degrees of ecological scale and organization ranging from single-species cultures over competitive communities to meta-communities. Example system 1 demonstrates that population structure (here: the cell cycle) may be important for understanding the dynamics even of the supposedly simplest populations such as single-celled phyto-plankton cultures.
Example 2 explores the role of rising CO2 levels on competing phytoplankton species. We find that CO2 not only has an effect on the community as a whole but also alters competitive interactions between species and phylogenetic groups.
System 3 is concerned with understanding source-sink dynamics in chemostats that re-present connected patches of zooplankton-phytoplankton communities. We show how the dispersal of competitors may eliminate regional coexistence. The three systems are used to answer concrete ecological questions but should also stimulate discussion about microcosms and their usefulness to simplifying and informing real, complex ecosystem scenarios.

Mittwoch den
06. April 2011

Von 16.15 Uhr bis 17.45 Uhr
in Raum ND 03/99

Gäste sind herzlich eingeladen



Gemeinschaftsveranstaltung der Arbeitsgruppen und Lehrstühle:

AG Geobotanik

AG Verhaltensbiologie und Didaktik der Biologie

AG Zoologie/Parasitologie

LS Evolution und Biodiversität der Pflanzen

LS Evolutionsökologie und Biodiversität der Tiere