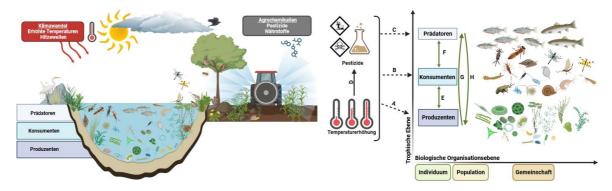
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MARCH 2024

Master Thesis opportunity (Vorburger Lab) in a new research project Climate Change and Freshwater Biodiversity (CCFB):

Multiple stressor effects of climate change and other stressors on aquatic food webs



Research project description:

Global climate change brings on rising temperatures and more frequent and extreme weather events, such as heatwaves and warm spells. These will have both immediate and lasting impacts on freshwater ecosystems. There is still a limited understanding of how these ecosystems will respond to higher mean temperatures and temperature extremes, particularly when unpredictable interactions with other stressors occur. These stressors include agricultural inputs such as pesticides, nutrients or fine sediment, as well as structural habitat degradation. To study multiple stressor effects on aquatic food webs, we use various types of mesocosms as experimental units (ponds and flumes), comprising semi-natural communities of differing complexity. The overall project goal is to deepen our knowledge on how multiple stressors in the context of global warming affect freshwater communities as well as ecosystem processes and function. Since studies that examine the underlying mechanisms of multiple stressor effects are scarce and often lack environmental realism, full-factorial experimental designs in the field will be used to disentangle interaction effects.

Field and laboratory work suitable for a 3 to 12-month project, depending on participation in planned field experiments and/or laboratory work. This project would take place in collaboration with Dr. Markus Hermann (markus.hermann@eawag.ch, Research Scientist and Program Coordinator of the CCFB project - www.eawag.ch/ccfb-en).



