



UFZ-Seminar „Wasser und Umwelt“

15. April 2013, 15.00Uhr

Saal, Brückstr. 3a, Magdeburg



Thomas Berendonk,

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spricht zum Thema:

Basic and applied evolutionary ecology in freshwater microbes: Thermal adaptation in Paramecium and antibiotic resistance in E. coli

We have tested how the current climate warming will affect the populations of a fast reproducing organism. As an example we have analysed the temperature adaptation of several Paramecium populations, which led to the conclusion that especially populations at the southern edge of Europe are endangered in the future. We could also show that the molecular mechanism of this temperature adaptation involves an increased Cyt HSP 70 transcription. In a second experiment was the co-evolution of Paramecium and its bacterial host *Caedibacter taenospiralis* tested. Surprisingly, we could show that not the growth rate but the carrying capacity of the Paramecium host is impacted by temperature effects. In last part of the talk I will illustrate the importance of antibiotic resistance evolution in the environment and demonstrate the relevance with data of a field investigation, which demonstrate the persistence of acquired antibiotic resistant bacteria (especially E.coli).

Falls Sie eine Videoübertragung nach Halle oder Leipzig gewünscht wird, bitte ich um eine E-Mail an kubus-info@ufz.de bis spätestens Freitag (12.4.), 12:00Uhr.