

Sommersemester / Summer Term 2012

BayCEER Kolloquium

Vortragsreihe Ökologie und Umweltforschung
*Lectures in Ecology and Environmental Research***Donnerstag 04.07.2013, 17:00 Uhr, H12**

Anschließend Postkolloquium mit Bier und Brezeln im Foyer H12

Dr. Oliver Otti

Animal Population Ecology, University of Bayreuth

Male and female responses to sperm environments in the bedbug *Cimex lectularius*

Variation in reproductive success between males is a fundamental problem in reproductive medicine and a precondition for evolution by sexual selection. Generally such variation is attributed to genetic differences between males and is largely shaped by females, including postcopulatory female choice for sperm of good, or compatible male genotypes. Variation in reproductive success due to environmental differences between males has received much less attention, despite strong evidence for environmental damage of sperm.

For example, microbes alone induce high bedbug sperm mortality, while in combination with an ejaculate-like antibacterial substance sperm survives as well as a control. We also tested competitively the relative significance of environmental and genetic sources of variation in female gene expression by mating females with same-aged males of different genotypes and sperm environments. Variation in the sperm environment caused >10 times more genes to be differentially expressed than the sperm genotype.

We still need to investigate to what extent the microbe-induced sperm mortality translates into male fitness and in general how microbes affect reproductive traits of both sexes. Our results show that non-genetic effects are an important but underappreciated source of reproductive variation in medicine and biology.

Do. / Thu. 17 st
Gebäude / Building
NW I
Hörsaal / Lect. hall
H12

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