



Seewiesen Colloquia

Speaker invited by: Dept. Rattenborg

Wednesday, 12. February 2014, 13:00 h, in House 4, Lecture Room

Influence of sexual selection and sex on the variability of biological traits

Prof. Klaus Reinhold
Evolutionary Biology, Bielefeld University

Variation is ubiquitous in the natural world and also a necessary precondition for evolution. Yet, the extent of variation is rarely studied and large variation is often seen as a nuisance in evolutionary studies because it may necessitate large sample sizes. In my talk I focus on two of my studies that concentrate on measuring and explaining the extent of variation of traits. The first study compares the variation in body size between males and females testing the idea that variation is smaller in the sex that has two identical sex-chromosomes. The second study describes the amount of variation present in acoustic signalling traits in anurans and insects and relates it with the strength of sexual selection on these traits and their duration.

Who is Klaus Reinhold?

- 1993 PhD, Universität Erlangen-Nürnberg
- 1994 Research Fellow, Universität Wien, Austria
- 1995 Fellow, Wissenschaftskolleg zu Berlin, Germany
- 1996 Post-doctoral Fellow, Kansas University, USA
- 1997 Research Fellow, Universität Bonn, Germany
- 2002 Visiting Professor, Universität Zürich, CH
- 2004 Professor of Evolutionary Biology, Bielefeld University, Germany

Selected publications:

Lampe U, Reinhold K & Schmoll T 2014. How grasshoppers respond to road noise: developmental plasticity and population differentiation in acoustic signaling. **Functional Ecology** (in press)

Reinhold K & Engqvist L 2013. The variability is in the sex chromosomes. **Evolution** 67, 3662–3668

Franzke A & Reinhold K 2013. Transgenerational effects of diet environment on life-history and acoustic signals of a grasshopper. **Behavioral Ecology** 24, 734–739

Lampe U, Schmoll T, Franzke A & Reinhold K 2012. Staying tuned: grasshoppers from noisy roadside habitats produce courtship signals with elevated frequency components. **Functional Ecology** 26, 1348–1354

Reinhold K 2011. Variation in acoustic signalling traits exhibits footprints of sexual selection. **Evolution** 65, 738–745