



Seewiesen Colloquia

Speaker invited by: Dept. B. Kempenaers

Thursday, February 28, 2013, 13h, House 4, Lecture Room

Sexual Selection: back to basics

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To misquote a football commentator, this is a talk of three halves. To start, I describe a recent debate about the value of measuring sexual selection using indices based on variance in mating success. Basically, there are two problems. First, an implicit assumption that the operational sex ratio predicts the strength of sexual selection does not always hold. Second, the importance of chance events is not a matter of chance: luck is more important in some situations than others. Next, I look at a very basic question: boys or girls? I present data showing a seasonal shift in the offspring sex ratio of a mosquitofish: girls in autumn, boys in spring. We argue that this arises due to seasonal differences in sex-specific mortality. This differentially affects the likelihood of generational overlap for each sex depending on when a fish was born. This alters the future availability of mates. I like this study because it offers a novel line of evidence to test a basic tenet of sex allocation theory. Finally, I conclude with something less theoretical, and rather basic (defined as without moral principles, ignoble). We have shown in mosquitofish that females prefer males with larger genitalia. But does size also matter in humans? All will be revealed...

Who is Michael Jennions?

- 1992 MSc, University of the Witwatersrand, South Africa.
- 1996 PhD, University of Oxford, UK.
- 1997 Smithsonian Tropical Research Institute, postdoctoral fellowship, Panama.
- 2001 ARC research fellowship, Australian National University, Australia.
- 2005 Member of NCEAS working group on meta-analysis in ecology/evolution, Santa Barbara, USA.
- 2009 Professor of evolutionary biology, Australian National University, Australia.

Selected publications:

- Kahn, A.T., Kokko, H. and Jennions, M.D. 2013. Adaptive sex allocation in anticipation of changes in offspring mating opportunities. *Nature Communications* (in press)
- Jennions, M.D. and co-authors. 2013. Seven chapters. In: *Handbook of Meta-analysis in Ecology and Evolution*. (Ed. by J Koricheva, J. Gurevitch and K Mengersen). Princeton University Press.
- Slatyer, R., Mautz, B., Backwell, P.R.Y. and Jennions, M.D. 2012. Estimating genetic benefits of polyandry from experimental studies: a meta-analysis. *Biological Reviews* 87: 1-33.
- Kokko, H., Klug, H. and Jennions, M.D. 2012. Unifying cornerstones of sexual selection: operational sex ratio, Bateman gradient, and the scope for competitive investment. *Ecology Letters* 15: 1340-1351.
- Kelly, C.D. and Jennions, M.D. 2011. Sexual selection and sperm quantity: meta-analyses of strategic ejaculation. *Biological Reviews* 86: 863-884.
- Backwell, P.R.Y. and Jennions, M.D. 2004. Coalition among male fiddler crabs. *Nature* 430: 417.