



Seewiesen Colloquia

Speaker invited by Dept. Gahr

Thursday, 3 March 2016, 13:00 h, in House 4, Lecture Room

Singing in the city park – studying courtship displays, mating decisions, and life histories of common nightingales

Prof. Silke Kipper

Technische Universität München

The complex song of the common nightingale (*Luscinia megarhynchos*) can be considered a vocal peacock tail. In order to understand the evolution, function, and mechanisms of such elaborate courtship signals it is mandatory to study three domains: the signal inventory itself, traits that the signals are reliably indicating, and the biological relevance of this relation to receivers. We collected a long-term data set to study these domains in the song, mating decisions, and breeding biology of nightingales, following individuals across breeding seasons and years. We were able to relate specific song characteristics to individual traits such as age, body condition, or parental effort. We studied how Melatonin might potentially regulate nocturnal song activity and how song might serve as a prezygotic barrier in a hybridizing zone of twin species. Finally, I will provide examples on how the long-term documentation of life histories of individuals in their natural surroundings yielded in results of importance far beyond the study of communication and mating systems.

Who is Silke Kipper?

- 2002 Doctorate on the acoustics of human laughter, FU Berlin
- 2005 Feodor Lynen postdoctoral fellowship Duke University, NC, USA
- 2006 Postdoc Animal Behaviour, FU Berlin
- 2007 Junior Professor of Biocommunication and Behaviour, FU Berlin
- 2015 Researcher and Lecturer, TU München

Selected publications:

Bartsch, C., Weiss, M., & Kipper, S. (2015). Multiple song features are related to paternal effort in Common nightingales.

BMC Evolutionary Biology 15: 115, DOI 10.1186/s12862-015-0390-5

Kipper, S., Kiefer, S., Bartsch, C., Weiss, M. (2015). Female calling? Song responses to conspecific call playbacks in nightingales (*Luscinia megarhynchos*). **Animal Behaviour** 100: 60-66.

Weiss, M., Hultsch, H., Adam, I., Scharff, C., Kipper, S. (2014). The use of network analysis to study complex animal communication systems: A study on nightingale song. **Proceedings of the Royal Society B**. doi:10.1098/rspb.2014.0460

Vokurkova, J., Petruskova, T., Reifova, R., Kozman, A., Morkovsky, L., Kipper, S., Weiss, M., Reif, J., Dolata, P.T., Petrusek, A. (2013). The causes and evolutionary consequences of mixed singing in two hybridizing songbird species (*Luscinia spp.*) **PLoS ONE** 8(4): e60172. doi:10.1371/journal.pone.0060172

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