# Max-Planck-Institut für Ornithologie

Max Planck Institute for Ornithology

Speaker invited by: Manfred Gahr

## Thursday, April 09, 2015, 13h, House 4, Lecture Room

# Themes and variations in bird song at the within-individual, between-individual and between-population levels

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Bird song is known as the acoustic analogue of the peacock's tail, and is often used as a model in sexual selection studies. Most research has focused on between-individual differences in song traits and investigated questions about how aspects of male quality can be signalled and how these can be translated into fitness benefits. However, bird song is a very special in a sense that it can also show a considerable variation within individuals, while spatio-temporal patters define biologically important patterns of variations at the between-population level. My research group has been studying the song of the collared flycatcher (Ficedula albicollis), which has a modestly complex system with males using 15-50 different syllable types in their individual-specific repertoires that they vary with high plasticity. In our earlier studies, by adopting the classical focus from behavioural ecology on between-individual variations, we determined the information content of male repertoires its relationship with mating success. More recently, we investigate how songs change within individuals across different temporal windows (within- and between days, and between years) and how such reaction norms differ among individuals and what are the fitness consequences of this variation. At a higher level, we study compositional changes in song at the between-population level, which open horizons for understanding the dynamics of cultural evolution. In my talk, I will provide examples from our model species to demonstrate the evolutionary relevance of the complex hierarchical organization of bird song.

## Who is Lászlo Zsolt Garamszegi?

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| 2002 | PhD Pierre et Marie Curie University, Paris, F |
| 2002 | Postdoctoral Fellowship, University of Antwerp, Antwerp, B |
| 2009 | Research Fellowship, Estación Biológica de Doñana-CSIC, Seville, E |
| 1992 | Associate Professor, Estación Biológica de Doñana-CSIC, Seville, E. |

## Selected publications:


- Garamszegi LZ. 2014 (ed.). Modern phylogenetic comparative methods and their application in evolutionary biology: concepts and practice. Heidelberg: Springer-Verlag Berlin; 552.
- Garamszegi LZ, Eens M, Török J. 2008. Birds reveal their personality when singing. Plos One 3:e2647.
- Garamszegi LZ, Møller AP, Török J, Michl G, Péczely P, Richard M. 2004. Immune challenge mediates vocal communication in a passerine bird: an experiment. Behav Ecol 15:148-157.
- Garamszegi LZ, Pavlova DZ, Eens M, Møller AP. 2007. The evolution of song in female birds in Europe. Behav Ecol 18:86-96.
- Garamszegi LZ, Zsebők S, Török J. 2012. The relationship between syllable repertoire similarity and pairing success in a passerine bird species with complex song. J Theor Biol 295:68-76.


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