



PhD Position at MPI Ornithology: Evolutionary Genetics of the Embryo Mortality Puzzle in the Zebra Finch

A PhD position is available at the Max Planck Institute for Ornithology (MPIO) in Seewiesen (near Munich, Germany) to study the quantitative and molecular genetics of embryo mortality in zebra finches.

It is one of the most fundamental puzzles in evolutionary biology why many animal species show high rates of reproductive failure despite the fact that natural selection should be acting against this in every single generation. For instance, in humans, it is estimated that two out of three fertilized eggs die before birth, and it is still not understood why such a wasteful system has evolved. The case of the zebra finch also represents such a puzzle, because we see high rates of embryo mortality that cannot be attributed to trivial phenomena like environmental effects or inbreeding. The project will combine the use of various genomic tools and QTL mapping with setting up specific experimental crosses to identify and characterize the genetic factors that lead to embryo mortality. In particular, we will attempt to understand better the evolution of incompatibility-causing loci and of selfish genetic elements.

We seek a highly motivated individual who shares our fascination with this topic and who has a background or strong interest in some of the following fields: evolutionary biology, quantitative genetics, molecular genetics and statistics. A Master's degree in biology or equivalent is required. The project primarily involves handling of extensive data sets of phenotypic and genetic data (breeding records of egg fates, pedigrees, SNPs, microsatellites, sequence data). Any prior knowledge in using R or Python or any experience in using bioinformatics tools in a Linux environment would be advantageous but can also be acquired at a later stage.

Initial appointment will be for three years with a possible extension for another year subject to research progress. Payment will be through a Max Planck PhD position (13/2 TVöD). We provide a supportive research and learning environment with excellent facilities. Working language is English. The Max Planck Society is an equal opportunity employer and encourages disabled persons to apply. The Society aims at increasing the number of women in fields where they are underrepresented, and therefore encourages them to apply.

Please send your application by **June 1st 2015** as a single file to our secretary Carmen Dobus (cdobus@orn.mpg.de). This file should include a concise statement of research interests and work experiences relevant to the project, curriculum vitae and contact details for 2-3 academic references.

For further information about the PhD project please contact Wolfgang Forstmeier (forstmeier@orn.mpg.de).

www.orn.mpg.de/forstmeier

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