



Piotr Minias

FULL PROFESSOR – UNIVERSITY OF LODZ · HEAD OF DEPARTMENT OF BIODIVERSITY STUDIES AND BIOEDUCATION – UNIVERSITY OF LODZ

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 0000-0002-7742-6750 | Scopus bibliometric data: citations 1838 · documents 151 · h-index 20

Currently held positions

Department of Biodiversity Studies and Bioeducation, Faculty of Biology and Environmental Protection

University of Lodz

FULL PROFESSOR

Department of Biodiversity Studies and Bioeducation

University of Lodz

HEAD OF THE DEPARTMENT

Scientific profile and collaborations

My scientific research focuses on evolution and ecology of birds. I am particularly involved in research on the mechanisms responsible for the evolution and diversity of key pathogen recognition immune genes in birds (the major histocompatibility complex and toll-like receptors). I am also interested in studying direct interactions of avian hosts with pathogens and parasites, including avian influenza virus, bacteria, haemoparasites, and ectoparasites. In this research I focus on field sampling of diverse non-model bird species and use novel molecular approaches for pathogen screening (microbiome meta-barcoding) and genotyping (next generation sequencing).

My scientific interests are also related to the studies of **urbanization** processes and their impact on **avian behaviour and reproduction**. Here, I take advantage from the long-term monitoring of urban bird populations, behavioural experiments, and **genomic/transcriptomic approaches** to investigate **adaptations to urban life** at different organismal levels.

Finally, I am interested in broad-scale **comparative research and evolutionary reconstructions** of life-history, physiological, and molecular traits in birds. For this purpose, I apply advanced phylogenetically-informed models to analyse big data sets comprising measurements from hundreds or thousands of bird species.

I conduct my research in a **broad international cooperation** with research teams from USA, China, Spain, Norway, Netherlands, Romania, and Czech Republic.

Selected publications

- 2022 **Molecular parallelism in signaling function across different sexually selected ornaments in a warbler** [\[link\]](#)
- 2019 **Evolution of copy number at the MHC varies across the avian tree of life** [\[link\]](#)
- 2019 **Evolution of heterophil/lymphocyte ratios in response to ecological and life-history traits: a comparative analysis across the avian tree of life** [\[link\]](#)

Research grants

Principal Investigator: 5 grants: NCN

International research stays

USA: Milwaukee, University of Wisconsin-Milwaukee, Fulbright Senior Advanced Research Award (2014-2015)