



Post-doctoral Position within the OPUS (2024/53/B/NZ8/03731) project on Ecogeographical Rules in Mammalian Evolution

We are seeking a highly motivated and independent postdoctoral researcher with strong analytical skills and a background in mammalian evolutionary biology for a full-time position at the Institute of Nature Conservation, Polish Academy of Sciences (INC PAS), Kraków, Poland. This 3-year position is funded as part of the OPUS project titled "Global Wind Regimes in Ecogeographical Rules of Evolution", financed by National Science Centre Poland, starting in March 2025.

Study field: evolutionary ecology, biogeography, phylogenetics, mammalogy

Location: Institute of Nature Conservation Polish Academy of Sciences (INC PAS), al. Adama Mickiewicza 33, Krakow, Poland

Project leader: Dr. Arkadiusz Fröhlich

Salary: The annual salary is 140,000 PLN gross gross (approximately 7,000 PLN net per month, subject to employment factors). The contract is for 36 months, contingent upon a positive evaluation after a 6-month trial period. Additional benefits include financial support for travel to project meetings, conferences, and workshops; research stays abroad with project collaborators, and funding for independent research ideas.

Career Development Opportunities: The postdoctoral researcher will benefit from mentoring students, collaborating on a multi-disciplinary project, developing analytical and programming skills, and expanding their international network through research stays and project meetings.

Recruitment process: Recruitment will follow the NCN (Polish National Science Centre, [see](#)) guidelines and include evaluation of submitted documentation, interviews with selected candidates, and final selection by an evaluation committee appointed by the Director of INC PAS. Candidates should submit the following in a single PDF file to sekretariat@iop.krakow.pl (Cc to frohlich@iop.krakow.pl) with the subject line "OPUS 27 Postdoc Application":

- A two-page cover letter detailing qualifications, research experience, and career goals.
- A copy of the PhD diploma (foreign degrees require recognition in Poland).
- Curriculum vitae, including a list of scientific achievements and publications.
- A signed consent for personal data processing ([see](#)).

Application deadline: The review of applications ends on 28 February 2025. Interviews will be conducted in early March 2025.

Additional questions should be directed to frohlich@iop.krakow.pl

Short description of the research project:

In the era of climate change, understanding the principles of organic evolution is more critical than ever. Despite advances in evolutionary biology, our understanding of the role of specific climatic factors in shaping global evolutionary processes remains limited. The project investigates the influence of wind regimes on avian phenotypes within the framework of ecogeographical rules, specifically Bergmann's and Allen's rules. It aims to introduce wind speed as a key evolutionary agent affecting body size and appendage length in mammals, addressing a significant gap in our understanding of climatic drivers in organic evolution. The project's objectives are to:

- Test the hypothesis that higher wind speeds within mammalian geographic ranges are associated with larger body sizes and shorter appendages (e.g., tails and legs) to enhance thermoregulation in colder climates.
- Investigate how the interaction between wind speed and temperature drives the evolution of mammalian phenotypes across diverse thermal environments.
- Employ phylogenetic comparative methods, including Brownian Motion (BM) and Ornstein-Uhlenbeck (OU) frameworks, to evaluate these hypotheses.
- Explore whether body size and appendage length evolve independently or interactively in response to selective pressures.

The project involves collaboration with renowned international researchers from Spain (Prof. Daniel Sol) and Australia (Prof. Matthew Symonds).

Tasks for the Postdoctoral Researcher: The postdoctoral researcher will focus on mammalian-related aspects of the project, with key responsibilities including: (1) conducting a literature review on mammalian phenotypes and their relation to wind regimes; (2) compiling and managing global datasets on mammalian body size, appendage length, and geographic ranges; (3) performing GIS-based and phylogenetic analyses using statistical tools in R or Google Earth Engine; (4) data analysis and model development; (5) leading the writing and publication of high-impact research papers; (6) participating in conferences, workshops, and research collaboration stays; and (7) engaging in knowledge dissemination and public outreach initiatives.

Requirements for candidates:

- A PhD degree in evolutionary biology, zoology, computational ecology, or a related field obtained within the past 7 years (the period could be prolonged given the scientific career breaks, [see](#)). It must be recognized as equivalent to Polish title or, alternatively, must have passed the nostrification procedures to obtain such recognition by the time of application. The [system KWALIFIKATOR](#) is a tool to assess the level and status of qualifications in the country of issue and to know which foreign degrees are recognized in Poland.
- Proven experience in geoanalyses and large-scale data handling.
- Proven experience with phylogenetic comparative methods and statistical modeling in R.
- Proven knowledge of global mammalian diversity, ecology and evolutionary biology.
- Good spoken and written English skills.

Additional advantages include an experience with evolutionary models (Brownian Motion and Ornstein-Uhlenbeck frameworks), publications in high-impact scientific journals, familiarity with thermal biology and ecogeographical rules, readiness for collaborative international research stays, and a strong motivation to contribute to high-impact evolutionary research.