

RESEARCH FELLOWSHIP IN BEHAVIOURAL ECOLOGY / POPULATION BIOLOGY

POSITION OVERVIEW. We are seeking a highly motivated and talented field biologist to join our team. The Research Fellow will play a crucial role in designing, implementing, and executing projects using field biology, behavioural investigations and population demography. While the focus will be primarily on writing up existing data, there will also be new opportunities to contribute to field work, experimental work and/or demographic modelling. The Fellow will have the opportunity to develop her/his own project related to the main research focus. The position is part of a large collaborative project "Sex roles and sex ratios in a changing world" which aims to promote interdisciplinary collaboration between research groups working on interactions among wild bird populations and their changing environment with funding from the HUN-REN programme of Hungarian Ministry of Innovation.

ABOUT US: Our international team of four PIs (see below) is investigating behaviour and ecology of shorebirds (sandpipers, plovers and allies) since the 1990's and we have produced over 400 peer-reviewed publications on sexual selection, breeding systems, parental care, sex ratios and population demography. Our publications often have been published in high impact research journals. Beyond evolutionary significance, our research has direct implications for biodiversity conservation by preserving species and by working with local communities to protect shorebird habitats. We work globally using an international network of scientists, conservationists and students (see links below).

FURTHER DETAILS. The Research Fellow will focus on understanding the impacts of Anthropogenic effects on shorebird populations. How do sexual selection, mate choice and parenting help or hinder adaptation to environmental changes? How can we make future predictions from ongoing ecological processes? How can we apply this knowledge to best practices in biodiversity conservation to benefit wild populations and their habitats?

We seek applicants with strong research background in one (or more) of the following fields: behavioural ecology, population demography, wildlife conservation and evolutionary genomics. The Fellow will have four main tasks: (i) lead a new research initiative to uncover the causes and implications of changing planet especially in regard to mating systems and sex ratios using shorebirds as model organisms, (ii) assist with coordinating our numerous field study sites in Europe and abroad, (iii) contribute to supervision of MSc and PhD students, and (iv) help our team mentoring exceptionally talented and motivated early career scientists and conservationists globally. Feel free contacting one of the PIs if you are unsure about your fit to the position.

Applicants should have a Ph.D. in animal ecology, behavioural ecology, population demography or a related field, and a strong background in quantitative analyses. Knowledge of programming languages such as R is required, and experience with biostatistics or demography is desirable. Proficiency in English is essential as is research track record matching the career stage of the applicant.

DURATION: Two years (ideally from 1 May 2024 to 30 April, 2026), with the possibility of extension for further two years, depending on the candidate's performance. Longer terms are negotiable for exceptional candidates.

SALARY: The gross salary is 950,000 HuF per month (approx 2,469 euros per month; the average gross salary in Hungary is 1,272 euros). The net salary per month is at least 600,000 HuF, an equivalent of Hungarian professorial salary. Social and health insurance contributions are independent of salary and are also paid by the employer.

ENVIRONMENT: The position is based in Debrecen: a vibrant and liveable city in eastern Hungary with large international student community. Debrecen has good public services and rental housing and food are affordable. The Fellowship is based of Debrecen Biodiversity Centre - a recently created institute at the University of Debrecen that carries out cutting edge research and conservation focused on climate change, water management and biodiversity. Our research team works closely with Hortobagy National Park – a UNESCO Heritage Site just outside Debrecen.

HOW TO APPLY: If you are interested in this position, please send i) a cover letter explaining your research interests and suitability for the position, ii) a copy of your CV with a list of scientific publications, and iii) contact information of two referees to szeman.karola@gmail.com Please use the subject line "DBK Fellowship application." Only shortlisted candidates will be contacted for an interview. Application deadline: 15 March 2024.

For further information on the project and participants please see:

ELVONAL SHOREBIRD SCIENCE <https://elvonashorebirds.com/>

PROF TAMAS SZEKELY (University of Bath / Debrecen) <https://www.szekelylab.com/>

PROF ROBERT FRECKLETON (University of Sheffield)
<https://www.sheffield.ac.uk/biosciences/people/academic-staff/rob-freckleton>

PROF BRETT SANDERCOCK (Norwegian Institute for Nature Research)
<https://www.nina.no/english/About-NINA/Contact/Employees/CV.aspx?ansattid=14268>

PROFESSOR OLIVIER GILG (University of Bourgogne) <https://www.researchgate.net/profile/Olivier-Gilg>

Selected recent publications. For our complete track record, please see GoogleScholar and ResearchGate

Alfaro, M., B.K. Sandercock 2020. Habitat selection and space use of Upland Sandpipers at the nonbreeding grounds. *Avian Conservation and Ecology* 14:18.

Amano, T., T. Szekely,2018. Successful conservation of global waterbird populations depends on effective governance. *Nature* 553: 199-202

Bulla, M.... O. Gilg...2017. Flexible parental care: Uniparental incubation in biparentally incubating shorebirds. *Scientific Reports* 7:12851

Gilg, O.....2023. Flyways and migratory behaviour of the Vega gull (*Larus vegae*), a little-known Arctic endemic. *PLoS ONE*, 18: e0281827.

Jones, W.,B.K. Sandercock....T. Szekely. 2022. Exceptionally high apparent adult survival in three tropical species of plovers in Madagascar. *Journal of Avian Biology* 22:e02911.

Kubelka, V...R. Freckleton, T. Szekely. 2018. Global pattern of nest predation is disrupted by climate change in shorebirds. *Science* 362: 680-683.

Kubelka, V, B. K. Sandercock, T. Szekely, R. P. Freckleton 2021. Animal migration to northern latitudes: environmental changes and increasing threats. *Trends in Ecology & Evolution* 37: 30-41.

- McDonald, G. C., ...T. Szekely....2023. Remating opportunities and low costs underlie maternal desertion. *Evolution* 77: 97-109.
- Mills, S. C., ...R. P. Freckleton ... 2023. High sensitivity of tropical forest birds to deforestation at lower altitudes. *Ecology*, 104: e3867.
- Moreau, J....O. Gilg. 2018. Discriminating uni- versus biparental parental care strategy at nest by monitoring nest temperature. *Ibis* 160:13-22.
- Sandercock, B.K. 2020. Mark-recapture models for estimation of demographic parameters. In: Murray, D.L., and B.K. Sandercock (editors), *Population Ecology in Practice* (pp. 157-190). Wiley-Blackwell, Hoboken NJ, USA.
- Sandercock, B.K. 2020. Population fitness has a concave relationship with migration distance in Sanderlings. *Journal of Animal Ecology* 89:674-677.
- Szekely, T. 2019. Why study plovers? The significance of non-model organisms in avian ecology, behaviour and evolution. *Journal of Ornithology* 160: 923-933.
- Szekely, T..... 2023. The causes and implications of sex role diversity in shorebird breeding systems. *Ibis* (accepted).
- Varah, A.... R. P. Freckleton 2020. The costs of human-induced evolution in an agricultural system. *Nature Sustainability*, 3, 63-71.
- Vagi, B.... R. P. Freckleton, T. Szekely 2022. The evolution of parental care in salamanders. *Scientific Reports*, 12, 16655.

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