

# PhD studentship in behavioral ecology and conservation of shorebirds

Supervisors: Prof. András Liker (Veszprém, Hungary), Prof Tamás Székely (Bath, UK), Dr Vojtěch Kubelka (Debrecen, Hungary)

## Project objectives

Social interactions are among the most fascinating aspects of animal behaviour. In an international project, we study the diversity of mating and parental behaviour in birds. The PhD project we are to initiate will focus on the demographic drivers of sex role reversal in shorebirds (plovers, sandpipers and allies), when females compete for mates and males provide parental care. Our team is carrying out cutting edge research in ecology, behaviour and evolution (see references below, and our websites), our recent studies suggest that sex role reversal occur in species where males are the more common sex, however, the processes that generate such male-skewed sex ratios are largely unknown. The successful candidate will carry out field study of the sex role reversed, polyandrous Bronze-winged Jacana in India, and join an international team of scientists working on shorebird ecology, behaviour and conservation.

This exciting project will collect data on the breeding behaviour, offspring sex ratio, and survival of males and females in a closely monitored population of jacanas. Based on these data the Student will use demographic modelling to estimate the adult sex ratio of the population, and test which demographic parameters are the most important determinants of the sex ratio. The project will also contribute to our largescale comparative studies that will investigate yet untested aspects of breeding behaviour and demography in shorebird species worldwide. The Student is also expected to promote biodiversity conservation using shorebirds as key organisms, see the ÉLVONAL SHOREBIRD SCIENCE at <https://elvonalshorebirds.com/>



## Expected motivation and skills for candidates

We are looking for a highly motivated and enthusiastic person with a background in biology, zoology or relevant discipline, a good understanding of evolutionary biology and interest to learn field biology and laboratory methods. The candidate should have sufficient English language skills, and the ability of organising and conducting field work in remote areas in an international team. He/she also needs to have a solid background in data analyses preferably in R, and statistical modelling.

## Funding

We welcome applications from self-funded students and students seeking their own funding from external sources. The studentship will be based at University of Pannonia, Veszprém, Hungary, and involve inputs from colleagues at University of Bath (UK) and University of Debrecen (Hungary).

Students from India are eligible for the “Stipendium Hungaricum” program which offers a scholarship for suitable students ([www.stipendiumhungaricum.hu](http://www.stipendiumhungaricum.hu)). Interested students should send an application to Prof Liker ([andras.liker@gmail.com](mailto:andras.liker@gmail.com)) which includes a CV (max 3 pages) and a max 2 pages cover letter with personal motivation and the name and contact details of two references (both in English).

**Deadline of application:** 31 December 2018.

## References

- Butchart, S. H. M. et al. 1999. Polyandry and competition for territories in bronze-winged jacanas. *Journal of Animal Ecology* 68: 928-939.
- Eberhart-Phillips, L. J., ..., T. Székely et al. 2018. Demographic causes of adult sex ratio variation and their consequences for parental cooperation. *Nature Communications* 9: 1651.
- Kubelka V., Šálek M., Tomkovich P., Végvári Z., Freckleton R. P. & Székely T. 2018: Global pattern of nest predation is disrupted by climate change in shorebirds. *Science* 362: 680–683.
- Liker, A., Freckleton, R. P., & Székely, T. 2013. The evolution of sex roles in birds is related to adult sex ratio. *Nature Communications* 4: 1587.

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