



2023 Master internship at University of Gdańsk



TITLE: Cognitive abilities of birds

LAB & PEOPLE

- Name of the hosting lab: Department of Vertebrate Ecology and Zoology
- General activities of the lab: The group consists of researchers working on various aspects of vertebrate ecology. One of the investigated topic are cognitive abilities of wild birds
- Website: <https://kezk.bio.ug.edu.pl/index.php?lang=en>
- Number of staff / PhD: 16 employees / 4 PhD students
- Supervisor name and contact: Dariusz Jakubas (email: dariusz.jakubas@ug.edu.pl) and Katarzyna Wojczulanis-Jakubas (email: katarzyna.wojczulanis-jakubas@ug.edu.pl)

TOPIC OF THE INTERNSHIP

- Scientific context of the internship (max 20 lines)

Cognitive abilities play an important role in birds live during the whole annual cycle (Araya-Salas et al. 2018) but traditionally they are examined in artificial context and laboratory conditions, with a focus on some specific avian groups (parrots, corvids). Here, we examine cognitive abilities of wild living warblers, looking on their cognitive performance during the migration (Jakubas et al. 2021) and breeding period. Using both experimental and observational approach we collected relevant data in the field, which are available in the form of video recordings. This material is to be processed during the internship. Data collected based on the material will be then processed in R software, and relevant analyses will be performed.

Keywords : cognitive abilities, escape behaviour, chick feeding

Bibliography:

Jakubas, D.; Wojczulanis-Jakubas, K.; Powers, A.; Frazier, T.; Bottomley, M.; Kraszpulski, M. Differences in a Cage Escape Behaviour between Two Migrating Warblers of Different Stop-over Strategy. *Animals* **2021**, *11*, 1–10, doi:doi.org/10.3390/ani11030639.

Araya-Salas, M.; Gonzalez-Gomez, P.; Wojczulanis-Jakubas, K.; López, V.; Wright, T.F. Spatial Memory Is as Important as Weapon and Body Size for Territorial Ownership in a Lekking Hummingbird. *Sci. Rep.* **2018**, *8*, doi:10.1038/s41598-018-20441-x.

- Tasks and duties entrusted to the student: Processing of the video material, participation in regular scientific seminars (one presentation from the student will be requested – about a scientific paper related with the topic or obtained results during the internship), data handling and analyses (depending on the student's programming skills).
- Skills to be acquired or developed: programming in R software, data handling and analyses in R (linear models, randomization), processing video material in different software, critical thinking, scientific writing; much depends on skills already developed by the students, if they are minimal then basics of the listed skills will be offered. If the student had already some analytical background, more advanced programming and analytical issues will be offered.

PROFILE OF THE DESIRED STUDENT

- Minimum level of study required: Bachelor

- Field(s) of study: Behavioural ecology

- Scientific skills: Basic skills of programming in R, and experience in processing video materials are welcome but not essential; Critical thinking; Some knowledge of statistical concepts and analyses (the level of involvement into the analytical part of the project will depend on the students scientific skills).

- Language skills required: fluent in English (to communicate with supervisor and group members, read scientific literature and protocols, and report the results)

THE INTERNSHIP ASSIGNMENT:

Desired duration of the internship (in months): 5-6 months

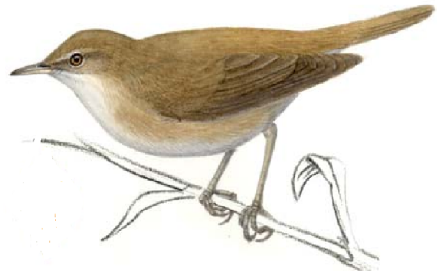
Desired Starting date of the mission: October 2023-January 2024

Indicative weekly schedule: *35h / week*

Remuneration:

Erasmus grant: additional Erasmus grant could be asked to your own university

Internship agreement: *an internship agreement will be signed.*



To SEA-EU students:

*If you're interested please send your CV and letter of motivation to the scientist in charge,
dariusz.jakubas@ug.edu.pl before the 15/September/2023*