How does oxidative stress shape physiological parameters and life-history decisions?

We are currently looking for motivated MSc students to run a novel experiment with captive zebra finches at the University of Groningen. Ideally the student would start the project immediately, but alternative starting dates could be discussed. In this project, you will work both independently, and as part of our team.

Concerning our research, we have breeding and adult zebra finches that will be subjected to a hyperoxic environment inside breeding cages, and they will be sampled frequently to monitor the effects of increased oxygen in the air they breathe in a wide array of physiological and behavioural parameters. This research will allow us to unravel the effects of oxidative stress in development and life-history decisions.

The scientific literature has previously found that an increase in oxidative stress has an effect on ageing, healthspan and survival in a wide range of taxa, including humans. As such, this project is closely related to research in the biomedical sciences and will thus inform healthy ageing policies in human populations.

Methods:
- Checking & maintaining welfare in captive birds
- Handling (young) birds, ringing and measuring biometry of both nestlings and adults
- Assisting in blood sampling and measurement sessions
- Real-time observations
- Laboratory work concerning oxidative stress measures
- Behavioural observations and video analyses
- Data management
- Statistical methods (using the R software)

Further reading:

Staff member: Simon Verhulst
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Expertise group: Behavioural & Physiological Ecology

Type of project: □ Bioinformatics □ Biomedical Sciences
□ Fieldwork □ Biology □ Behavioural and Cognitive Neurosciences
□ Laboratory □ Ecology and Evolution □ Marine Biology
□ Theoretical

MSc program: □ 30 □ 40

ECTS: □ 30 □ 40

Language: □ Dutch □ English

Start date: As soon as possible
Location: GELIFES - Linnaeusborg