

Invitation to the Seminar series in Evolutionary Biology

Tuesday, 29.10.2024

Dr. Clemens Küpper

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Title: Ecological and evolutionary drivers of unconventional reproductive tactics

Abstract:

Conventional sex roles imply that males compete and females care. Dominant males are popular with females and enjoy high mating success, whilst many subdominant males are an evolutionary dead end as they are unable to reproduce. Under this paradigm, females are expected to choose their partner carefully and then diligently look after the offspring. However, in many species, the observed sex roles do not conform with such conventionality, or show unexpected diversity and flexibility. For example, in some species females have emancipated themselves from care and leave this task to their male partners, whilst they compete over mating partners. In other species, some males have given up entirely to seek dominance and are highly successful by employing alternative reproductive tactics to obtain matings. In my talk, I will present empirical examples from our studies on shorebirds that further our understanding on the evolution of unconventional reproductive tactics. Shorebirds (plovers, sandpipers & allies) show an unusual diversity in mating and care behaviours that are thought to have evolved as a response to differences in sexual selection. In the first part, I will show how social and ecological conditions in plovers drive female polyandry and male parental care. In the second part, I will show how an autosomal supergene has led to the evolution of three distinct male reproductive morphs in ruffs. Our studies demonstrated that this unusual diversity in ruffs is maintained by genetic conflicts and frequency dependent selection. Finally, I will show how a detailed transcriptomic and hormonal characterization of the morphs has helped to pinpoint mechanistic differences in the molecular regulation of steroid hormones, which are key factors underlying the diversity of reproductive tactics

Host: Prof. Hanna Kokko

The colloquium (usually) takes place on Tuesdays at 12:15 pm until approx. 1:15 pm in the BZ 1 lecture hall (HS 00.187). Talks are given in English. Everyone interested is welcome!