

**Invitation to a guest lecture  
at the joint colloquium of the Institute of Biology and Environmental Sciences, the  
Department of Neuroscience and the Institute of Avian Research**

**Module bio890: Current topics in biology**

**David Marque**

(Naturhistorisches Museum Basel)

## **Old genetic variation: key to rapid adaptation and speciation?**

The biodiversity crisis raises evolutionary questions: What species will adapt and survive? How fast will species diversity recover? To answer those, we need a better understanding of the genetic mechanisms behind rapid adaptation and speciation. Looking back into the past of species radiations allows to uncover such genetic mechanisms as these lineages rapidly diversified and adapted to new niches in the case of adaptive radiations. In my research, I study the evolutionary history of radiations with genomic tools, previously of threespine stickleback and East African cichlids and currently of large white-headed gulls. Whole genome data from these and other systems give us important insights into the speed of radiations, the source of genetic variation involved in rapid adaptation and speciation, and ultimately the predictability of evolution.

**30.01.2023, 4:15 pm, W04 1-162/hybrid**

Host: Prof. Dr. Miriam Liedvogel (Director Institute of Avian Research)

(AG Behavioural Genomics),IBU

Members of all institutes are cordially invited to join the lecture.