

# BayCEER Kolloquium

Lectures in Ecology and  
Environmental Research

WS 2019/20



UNIVERSITÄT  
BAYREUTH

Donnerstag/Thursday

**23.01.2020**

**12:00 in H6, GEO**

**Prof. Dr. Manuel Steinbauer**

Sport ecology, BayCEER, University of Bayreuth

## **Understanding biodiversity dynamics – from human dominated systems to the fossil record**

The fundamental processes that generate and maintain the complex patterns of life on Earth are not only anthropogenically influenced but also by interactions across time. The effects of human influence and the legacy of past processes are thus shaping vital ecosystem services. I will demonstrate how current biodiversity dynamics are influenced by past environmental processes and that human induced dynamics have accelerated with time, before I outline research on humans as an integral part of modern ecosystems with particular focus on sport ecology. Biodiversity dynamics, e.g. extinction risk of species, are not only driven by current climate change, but highly determined by interactions across time like short-term climate change and historical climate trends (quantified with fossil records). This effect of paleoclimate is comparable to other mechanisms used to assess extinction risk of species and needs to be integrated in our understanding of biodiversity dynamics in human dominated systems. This anthropogenic influence on biota is not a recent phenomenon but ranges back to the beginning of our species. Research on biodiversity dynamics thus integrates humans as a key component of ecological systems. Studying the role of sport provides the opportunity to further integrate humans in ecosystem research, to understand human perception and decision making as well as to support management of ecosystem services.