Unravelling the Past, Predicting the Future:
Dynamics of Adaptation to Climate Change

(Scientific Seminar of the DASFP, FTZ, CZU)

Invited speaker:

Petr Kotlík

**Institute of Animal Physiology and Genetics,
Czech Academy of Sciences**

When:
February 20th, 2025
14:00-15:30

Where:
FTZ, room 116

On-line:

As global temperatures rise and climate extremes become more frequent, many species are encountering conditions that push the limits of their physiological tolerance. The ability to adapt depends on genetic diversity—the range of existing genetic variants that facilitate evolutionary responses to environmental change. Using the bank vole (*Clethrionomys glareolus*) as a model species, we explore how populations have historically responded to shifting climates and assess their potential to cope with future challenges. Our findings highlight the role of genetic mixing and natural selection in shaping adaptation, providing broader insights into evolutionary processes that are relevant across ecosystems, including the tropics. Understanding these mechanisms is essential for predicting biodiversity resilience and informing conservation strategies in a rapidly changing world.