

Lecture Series Environment & Biodiversity

From flexibility to adaptation:

How animals respond to

urban environments

Dr. Marion Chatelain

Universität Innsbruck

Host: Dr. Beate Anna Apfelbeck

Friday, 28 November 2025, 2:00 P.M. NLW-Faculty, Room 413, 1st floor





## **Abstract**

Urban environments present unique challenges and opportunities for wildlife, necessitating remarkable flexibility and adjustments. In this seminar, I will present my research on how animals, particularly birds and earthworms, respond to urban settings, focusing on the impact of metallic trace elements (MTEs) and the consequences of bird feeding. First, I will discuss the impact of MTE exposure on bird reproductive success and physiology, emphasizing the role of melanin as a potential detoxification mechanism. I will also present my findings on earthworm responses to MTEs, highlighting the importance of pollutant detection and habitat choice in coping with soil pollution in urban areas. In the second part, I will present my ongoing research on the ecological and evolutionary consequences of bird feeding, including results on foraging behaviour and its consequences on spatial genetic structure and phenotypic variations in great tits (Parus major) and blue tits (Cyanistes caeruleus) within the urban mosaic of Innsbruck.

