Habilitation colloquium

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date: 13.11.2025 11 a.m.

room: N24/201 (Ecocourse room)

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From Species Traits to Community Patterns: Flying Vertebrates in anthropogenic landscapes

Fotos Greater mouse-eared bats (© Lisa Printz) and Eurasian tree sparrow (© Martin Fellendorf)

Biodiversity faces unprecedented challenges due to human activities, in particular through land use, habitat degradation and increased urbanization.

Among vertebrates, birds and bats play integral roles in nearly all terrestrial ecosystems, providing essential ecological functions. Owing to their ability to fly, both groups are highly mobile and rely on sound to actively interact with their environment for navigation and communication, making acoustic monitoring a key tool to assess species response to environmental changes.

Individual species of birds and bats vary greatly in their sensitivity to anthropogenic habitat disturbance and mainly trait- based processes are leading to shifts in species assemblages as land use and management intensify. This underlines that understanding the underlying causes and mechanisms that determine species resilience or decline in response to environmental change is crucial for effective conservation and maintaining ecosystem stability.