

Spatial and temporal avoidance of humans by wildlife

The presence of wild mammals and birds within urban centers often sparks wonder. However, what role does the city play as an ecological filter? Which species are capable of infiltrating urban cores, and how do they utilize this environment spatially and temporally?

The hypothesis posits that wild animals navigate a human-influenced "landscape of fear," compelling them to inhabit only those pockets of time and space devoid of human presence. This conjecture forms a part of biodiversity monitoring conducted by the LETG laboratory in Nantes and ISEM in Montpellier, utilizing photographic and acoustic traps.

Since 2022, 24 photographic and audio traps have been strategically positioned from urban centers in Nantes and Montpellier to regions such as the Vendée bocage and the Mediterranean garrigue hinterland. Over 50,000 videos have been recorded, with 70% already annotated, revealing the presence of 42 bird species and 25 mammal species. Additionally, audio monitoring is used to quantify anthropogenic acoustic disturbances and avifauna singing patterns.

The overarching goal of this thesis is to unravel the patterns of spatial and temporal avoidance of wildlife in response to human activity. Are there widespread temporal or spatial avoidance behaviors observed on a large scale?