



Press Release

Lynx Take Lunch Breaks

An international research team recorded and analyzed the activity patterns of 38 wild cats over the course of months

Whether a lynx hunts by day or by night and how active it is overall depend primarily on the behavior of the wild cat's most important prey and its individual traits – lighting conditions, on the other hand, do not play a major role in its basic behavioral patterns. This is the key finding of a study published in the journal *PLOS ONE* by an international research team led by forest scientist Dr. **Marco Heurich**.

The scientists fitted GPS collars and motion sensors on 38 free-ranging lynx for the study. Since the study sites were located across a wide latitudinal range from Central Europe to northern Scandinavia, the length of days and nights varied greatly between them. The team recorded and analyzed the activity patterns of the wild cats on a total of more than 11,000 days. The results reveal that lynx in more southerly regions are most active at dawn and dusk and that they move more by night than by day. They take their longest break in the middle of the day, and this break is extended as daylight duration increases. However, the cats exhibit this basic behavioral pattern independently of lighting conditions: "Lynx keep to a 24-hour rhythm with an active and a resting phase even on the polar day and the polar night," reports Heurich.

What the study found to be more important for explaining the wild cats' activity patterns are their individual traits: Young lynx are more active than adult lynx, and male adults are more active than female adults. In addition,

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they move more in spring and summer than in fall and winter, and the farther north they live, the larger the territory they cover – and this of course results in higher activity. Lynx adapt their hunting schedule to the behavior of their prey. In polar regions, the height of their activity at dusk is less pronounced. This corresponds to the behavioral pattern of reindeer, which exhibit a steady movement profile outside of their sleeping phases. In Central Europe, by contrast, the team found a maximum amount of activity at dusk – in lynx as well as in deer. “The findings of this study make an important contribution to our understanding of the habits of predatory animals in our landscape,” says Heurich. “They also show that human activities in the areas included in the study do not have a general influence on the activity pattern of the animals.”

Marco Heurich is an adjunct lecturer at the Institute of Forest Sciences of the University of Freiburg, where he is working on his habilitation under Prof. Dr. **Ilse Storch** at the Department of Wildlife Ecology and Management. He also serves as deputy head of “Area III: Nature Conservation and Research” at the Bavarian Forest National Park Administration. The project partners include the Ludwig-Maximilian University of Munich, the Swedish University of Agricultural Sciences, Šumava National Park in the Czech Republic, the University of Ljubljana in Slovenia, the Norwegian Institute for Nature Research, and the Mammal Research Institute of the Polish Academy of Sciences.

Original publication:

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Caption:

To study the behavior of the wild cats under various lighting conditions, the team included animals from northern Scandinavia, where the sun doesn't rise in the winter and doesn't set in the summer.

Photo: John Ivar Larsen

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