



Conference Abstract

# Nocturnal space and habitat use by Garden Dormice in an urban area in Germany

Franziska L. Sommer<sup>‡</sup>, Silvia Waldinger<sup>§</sup>, Johannes Lang<sup>‡</sup>

<sup>‡</sup> Justus-Liebig-University Giessen, Clinic for birds, reptiles, amphibians and fish, Working Group for Wildlife Research, Frankfurter Strasse 114, 35392 Giessen, Germany

<sup>§</sup> Johannes Gutenberg-University Mainz, Institute for Organismic and Molecular Evolution, Hanns-Dieter-Hüsch-Weg 15, 55128 Mainz, Germany

Corresponding author: Silvia Waldinger ([swalding@students.uni-mainz.de](mailto:swalding@students.uni-mainz.de)),  
Johannes Lang ([johannes.lang@vetmed.uni-giessen.de](mailto:johannes.lang@vetmed.uni-giessen.de))

Received: 28 Mar 2022 | Published: 15 Apr 2022

Citation: Sommer FL, Waldinger S, Lang J (2022) Nocturnal space and habitat use by Garden Dormice in an urban area in Germany. ARPHA Conference Abstracts 5: e84451. <https://doi.org/10.3897/aca.5.e84451>

## Abstract

The Garden Dormouse (*Eliomys quercinus*) is currently disappearing from parts of its former range. While its population is declining in many parts of Germany, a stable occurrence is found in the city of Wiesbaden. A radio telemetry study was conducted to investigate nocturnal activity and habitat use.

Three males and one female were tracked for six weeks from May to July 2021. Males weighed  $85 \pm 15$  g ( $n = 6$ ), females  $63 \pm 8$  g ( $n = 2$ ). Home ranges were calculated using the minimum convex polygon (MCP) method. Males had larger home range sizes (MCP100:  $2.69 \pm 1.8$  ha,  $n = 3$ ) than females (0.53 ha,  $n = 1$ ). The home ranges of males overlapped. Males regularly crossed roads up to 16 m wide. Animals exhibited nocturnal behavior with sporadic activity at dusk. Garden Dormice preferred structures with more than 75 % cover from a bird's eye view and 50 % cover when viewed from the side. Broad hedges were strongly preferred over single shrubs and trees or structures without vegetation. They were used by the animals for foraging, mating, as a place for other interactions, and as protected pathways through the habitat.

The smaller home range sizes compared to previous studies may be due to good food availability in the city. Animals also seem to benefit from continuous habitat and high levels

of plant cover. Recommended conservation measures include maintaining and promoting broad hedges and habitat connectivity.

## **Keywords**

In Search of the Garden Dormouse, radio tracking, habitat use, urban habitat, hedges

## **Presenting author**

Franziska L. Sommer

## **Presented at**

Poster presentation at the 11<sup>th</sup> International Dormice Conference (May 9-13, 2022)

## **Funding program**

This project is/was funded by the German Federal Agency for Nature Conservation with resources from the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection.