

Supplementary information for the article titled "**Does explorative behavior allow the successful finding of ephemeral food resources in the wild?**"

Journal name: Mammal Research

Authors and Affiliations

Martyna Wirowska^{1*}, Karolina Iwińska², Zbigniew Borowski³, Marcin Brzeziński¹, Paweł Solecki⁴, Jan S Boratyński^{5*}

¹Faculty of Biology, University of Warsaw, Warsaw, Poland

²Doctoral School of Exact and Natural Sciences, University of Białystok, Białystok, Poland

³Department of Forest Ecology, Forest Research Institute, Sękocin Stary, Poland

⁴Faculty of Electronics and Information Technology, Warsaw University of Technology, Warsaw, Poland

⁵Mammal Research Institute, Polish Academy of Sciences, Białowieża, Poland

***Authors for correspondence:**

Martyna Wirowska

martyna.wirowska@gmail.com

Jan Stanisław Boratyński

jan.boratynski@gmail.com

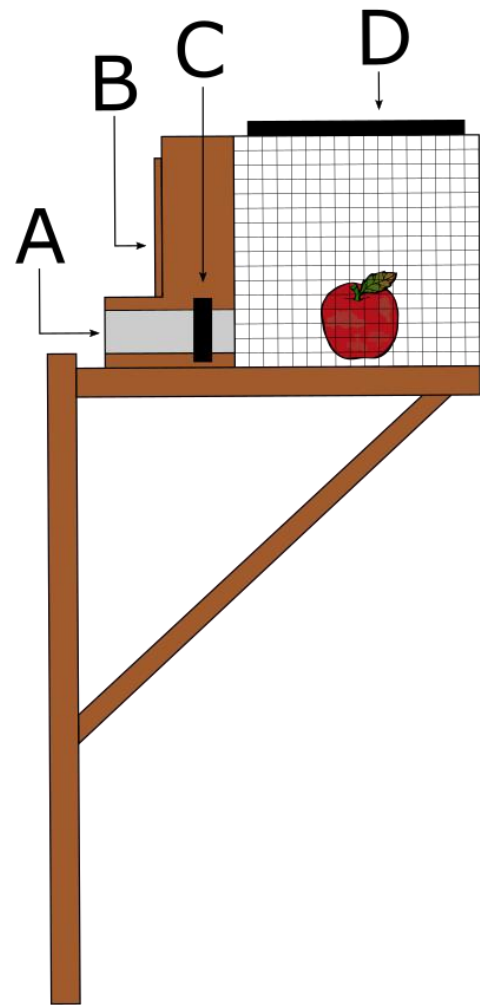


Figure S1 Photo of a feeder on the study plot. The diagram on the right illustrates the construction of feeders used in the field experiment

A – tunnel leading to the feeder compartment

B – compartment with electronic devices, closed with a flap

C – single PIT-tag reader antenna (gate)

D – feeder compartment built with wire mesh, closed with a flap

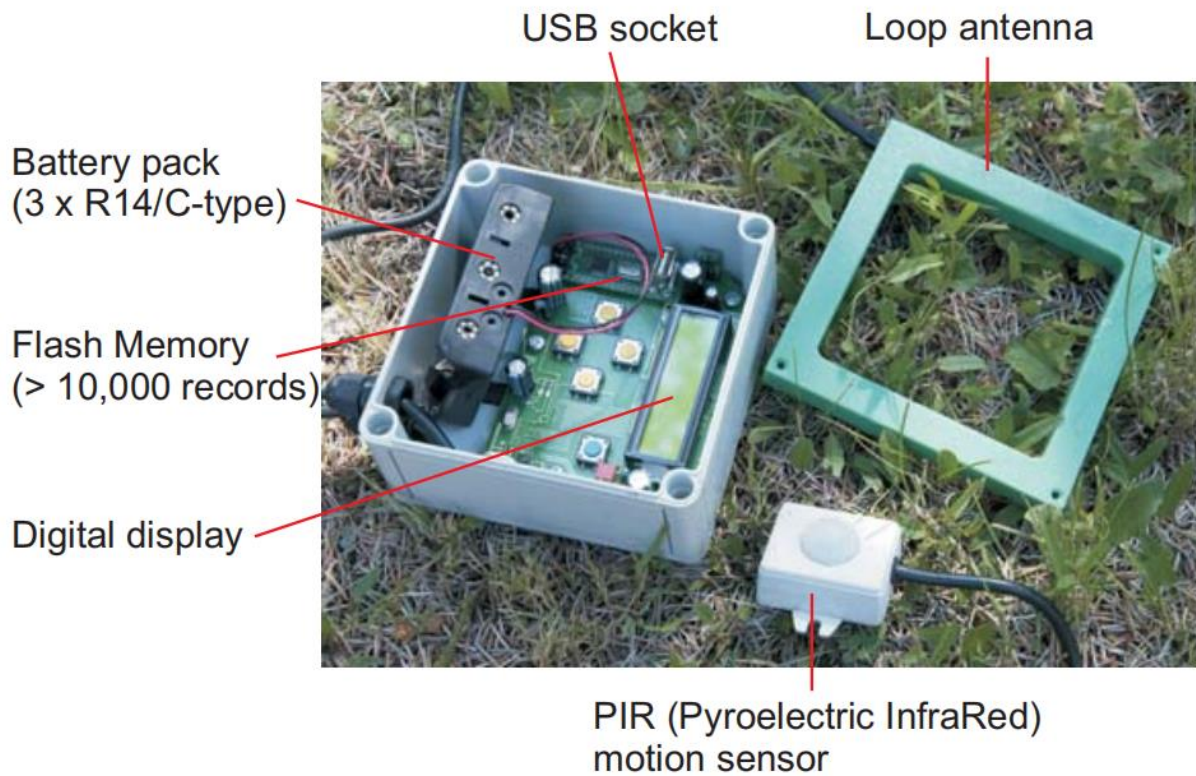


Figure S2 PIT-tag readers used in this study detect all ISO Standard radio-frequency identification tags in compliance to ISO 11784/11785 fdx-b (134.2 kHz). To reduce the energy loss, energy efficient motion detectors are applied, which turn on the power supply for loop antenna only when initiated by the animal presence. This allows (dependently on number of activations) to register animal presence for periods even longer than a month without a need for recharging energy source. Data is saved in following format: year-month-day, hour-minutes-seconds, PIT tag ID

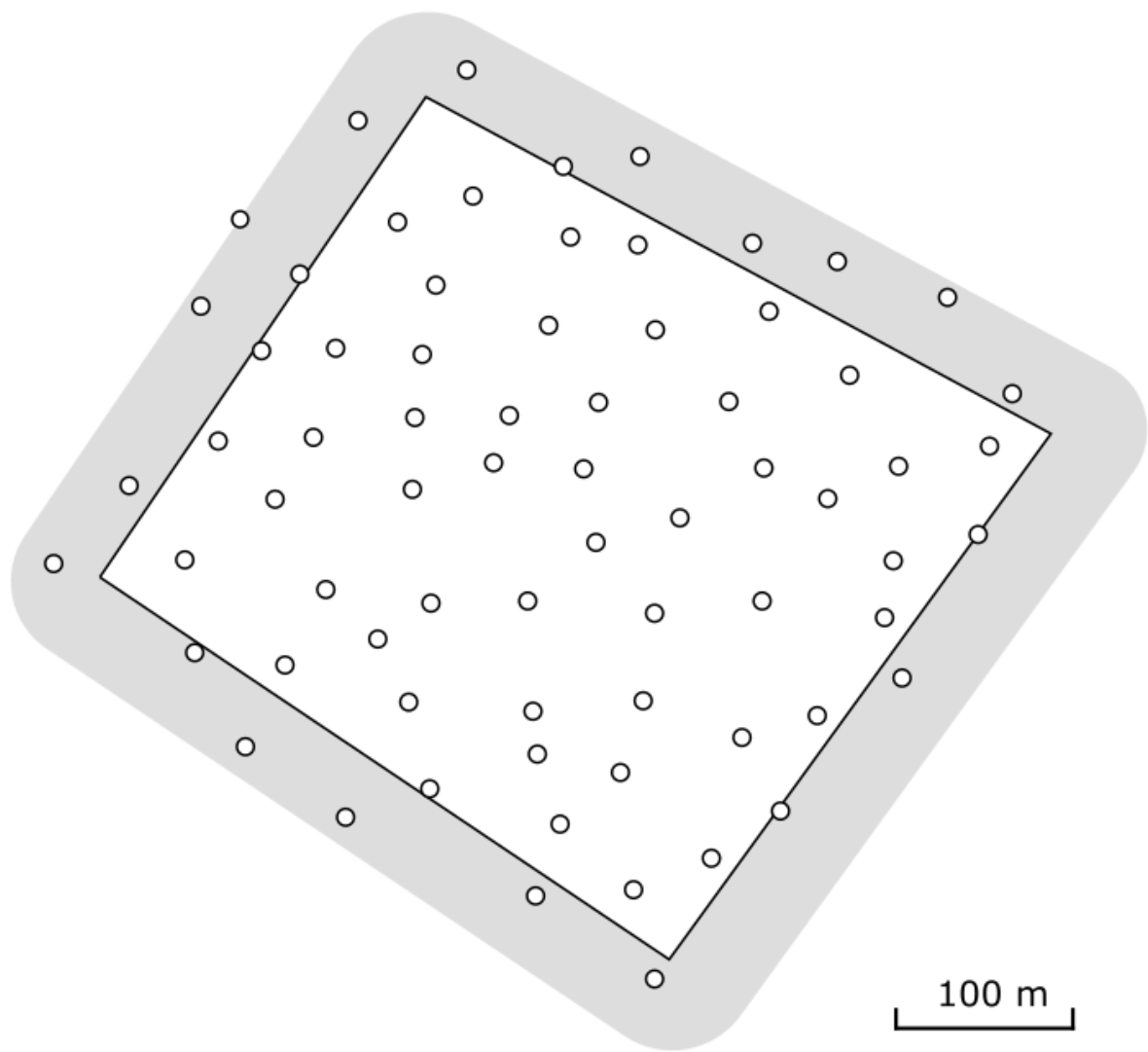


Figure S3 Schematic map of the study plot. Square white area – location of 64 nest-boxes forming a $\sim 50 \times \sim 50$ m grid, white circles – feeder locations ($n = 70$), light gray area – buffer zone (additional 50 m outside the area with nest-boxes)

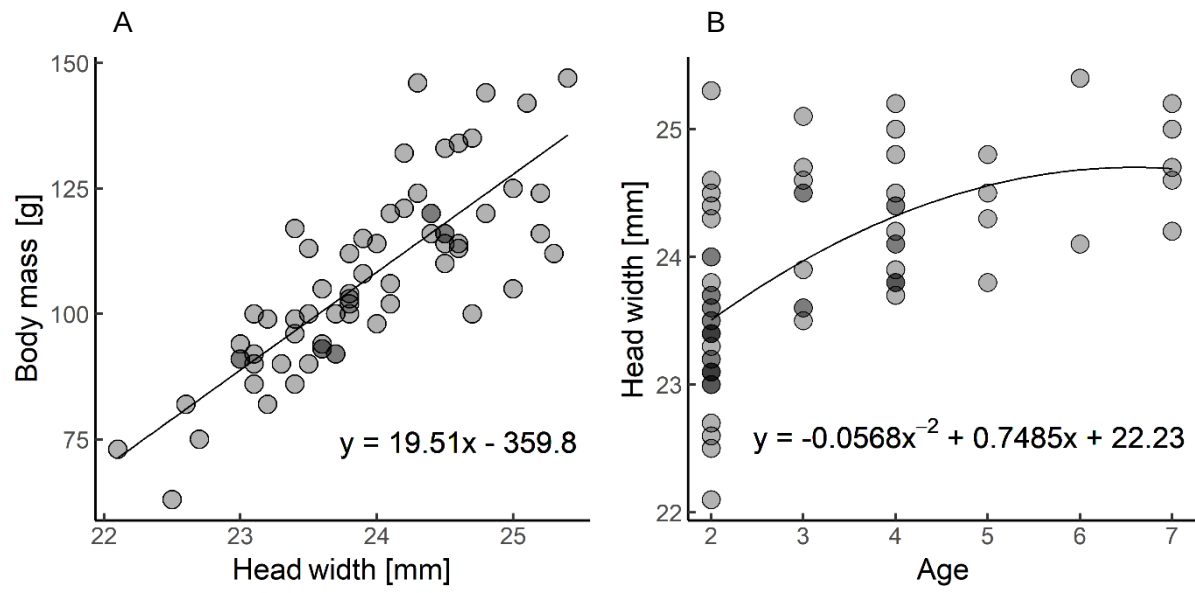


Figure S4 Ordinary least square regression (A) between body mass and head width ($R^2 = 0.65$, $t = 10.97$, $p < 0.001$). Second order polynomial regression (B) between head width and age ($R^2 = 0.38$, $\chi^2 = 22.09$, $p < 0.001$)