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## Population Dynamics – Session 2

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### **The role of food availability in life history traits and population dynamics of the edible dormouse (*Glis glis*) in pine dominated forest**

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The distribution and the predictability of food resources are important ecological factors influencing reproduction and life history tactics of many animal species. It is especially important for specialized seed predators like the edible dormouse, which can skip reproduction in years with low seed availability. Whereas the majority of studies were conducted in beech or oak dominated forests the present study was conducted in pine forest, with Scots pine (*Pinus sylvestris*) as the dominant tree species (above 90%). In a field experiment we tested the hypothesis that the presence of high caloric food from spring to autumn affects life history tactics and population dynamics of dormouse. Therefore, in years 2014 – 2016 on two experimental plots, we provided hazelnuts as a supplementary food from spring to autumn, whereas two other study plots remained without any additional food as control plots. Supplemental feeding did not affect reproduction, body condition nor population dynamics of dormice. Moreover, we did not observe differences in number of offspring or their sex ratio. However, in one year (2015) additional food elevated body mass of adult females but in next year (2016) it caused the weight loss of females. This illustrates that high-calorie food in itself may not be the only factor responsible for the condition of individuals, their reproduction and population dynamics in this rodent species, contrary to other studies. Additionally, during the autumn time, we discovered that additional food decreased relatedness between dormice which shared the same nestbox, which indicates that increased food availability reduced the competition among individuals during the autumn period.

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6<sup>th</sup> International Conference of Rodent  
Biology and Management  
and  
16<sup>th</sup> Rodens et Spatium

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Book of Abstracts



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