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## Poster Session 2 – Conservation and Ecosystem Services

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### 98 The effect of urbanization on the growth indices and parasite infestation of wild brown rats, *Rattus norvegicus*

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Currently, urbanization has been blooming all over the world, especially in developing countries. The process of urbanization could not only alter the natural environments but also impact the life of urban animals. The brown rat (*Rattus norvegicus*) is commonly observed in both urban and rural areas, and it is reasonable to argue that there could be differences based on its living environment. To test this hypothesis, the body condition and parasite infestation of wild brown rats captured from urban and rural areas in Henan Province, China were analyzed. The results demonstrated that, 1) the urban brown rats showed bigger body length (urban:  $18.8 \pm 2.2$  cm; rural:  $16.9 \pm 1.6$  cm), heavier body mass (urban:  $147.0 \pm 51.2$  g; rural:  $105.1 \pm 27.7$  g), and higher body mass index (urban:  $0.401 \pm 0.067$  g/cm<sup>2</sup>; rural:  $0.360 \pm 0.044$  g/cm<sup>2</sup>) than that of the rural counterparts; 2) the cysts of *Taenia* sp. were found in the brown rats' liver, and the prevalence was 20.0% (5/25) in urban brown rats and 8.3% (2/24) in rural brown rats; 3) the blood parasite *Trypanosoma* sp. was observed in the brown rat, and the prevalence was 4.3% (1/21) in urban brown rats and 37.5% (9/24) in rural brown rats. Urbanization may affect the body condition through changing the food resources offered by human activities. Moreover, urbanization also could influence the life cycle of some parasites, therefore it could alter the infestation with these parasites. Therefore, increasing attention shall be put on investigating the relation between urbanization and urban wildlife. The study was financially supported by Undergraduate Training Project of Zhengzhou University (2016XJXM282).

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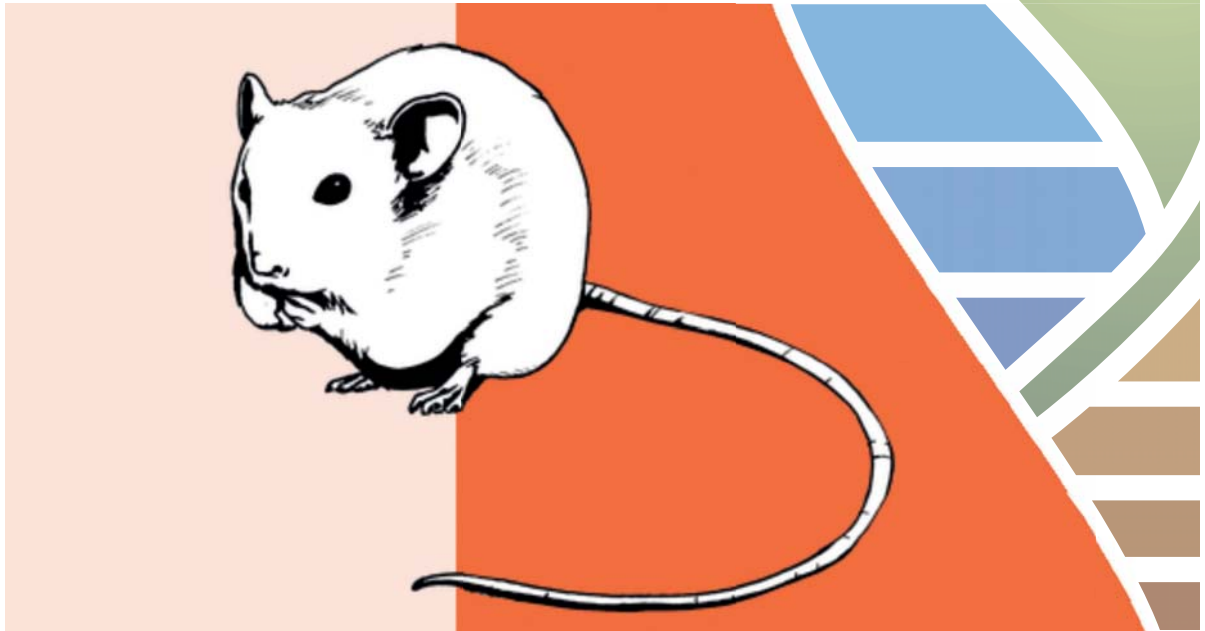
# Julius-Kühn-Archiv

Jens Jacob, Jana Eccard (Editors)

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

Potsdam, Germany, 3-7 September 2018

Book of Abstracts



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