



XIII Congresso de ECOLOGIA

III International Symposium of Ecology and Evolution

Múltiplas ecologias: evolução e diversidade

08 a 12 de outubro de 2017 • UFV - VIÇOSA | MG

SPRING BAT ACTIVITY IN A VAULTED CELLAR IN THE BORKEN DISTRICT, GERMANY

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Tema/Meio de apresentação: Histórias de vida/Pôster

In 1997 in the Borken district, located in Münster Region, in Northwest Germany, a bats' winter roost was discovered in a 60 m long abandoned vaulted cellar. Around 200 hibernating bats were found, making it the most important hibernaculum within the district. Since then, local visual inspections have been conducted yearly. No other methods, however, have been used to identify the species of bats at the location, nor has their activity been evaluated. The aim of this study was to (i) verify the species composition of this population and (ii) investigate the species-specific bat activity in the late winter/spring period. Photographic records were made with a camera trap *in loco* (Nikon D100) combined with a 24h-operating motion sensor during a 16-week period (February 8th to May 30th, 2016), recording every animal exiting the cellar. 848 photos were taken and analysed. The software "Fledermauslabel" (Chirotec) was used to organise the obtained data. Four bat species were identified: Natterer's bat (*Myotis nattereri*), Daubenton's bat (*Myotis daubentonii*), Brown long-eared bat (*Plecotus auritus*) and Pond bat (*Myotis dasycneme*). The first two species showed the highest activity, but at different time periods. *M. nattereri* activity was particularly high in February, reaching its climax in the second week of analysis and dominating the overall activity for 8 weeks during late winter and the emerging period (February and March), suggesting that this species is the last to arise from hibernation at the studied location. In contrast, *M. daubentonii* activity dominated the early summer swarming period (May), especially during the last three weeks of observation, suggesting that the species starts to engage in reproductive behaviour earlier than others do. *P. auritus* and *M. dasycneme* were generally very rare. The species found and their intense use of the cellar highlight the high ecological relevance of this site for bats.