Long-term trends in carabids over 25 years - community and population level analyses

Claudia Drees‡, Estève Boutaud§, Katharina Homburg¶, Dorothea Nolte#, Wiebke Schuett¶, Pascale Zumstein¶, Thorsten Assmann§

‡ Institute of Zoology, Hamburg, Germany
§ Leuphana University Lüneburg, Lüneburg, Germany
¶ Am Schleplingsbach 36, Stadthagen, Germany
# Universität Hildesheim, Hildesheim, Germany

Corresponding author: Claudia Drees (claudia.drees@uni-hamburg.de)

Received: 11 Jun 2019 | Published: 12 Jun 2019


Abstract

In times of insect decline, long-term data become more and more important. Such data allow insights into long-term trends and an analysis of possible drivers underlying temporal changes of community and population structure. Using data from 25 years of continuous ground beetle trapping in an ancient woodland located in a large nature reserve in Northern Germany, we analysed temporal changes at both community and population level and identified potential underlying drivers. Ground beetle species significantly declined over time but biomass and number of trapped individuals remained constant. As the habitat was kept stable and unchanged in the last 25 years we also study the influence of external drivers such as climatic variables on phenology and population trends of the most-abundant species. We discuss our results in light of the ongoing insect decline and climate change.

Presenting author

Claudia Drees

© Drees C et al. This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
Presented at

19thECM oral communication