Contribution ID: **499** Type: **Poster presentation**

# Wildlife Health Surveillance –Preventing Pandemics at Source: Findings from the Interdisciplinary Project 'Bat Health in Central Germany –From Pathology to Protection'

*Monday, October 5, 2026 7:24 PM (1 minute)*

Bats are keystone species and indicators of ecosystem health. Additionally, surveillance offers insights into zoonotic risks and anthropogenic impacts. Thus, understanding diseases and mortality in local bats enables assessing potential threats to animals, humans and the environment.
This interdisciplinary project combines macroscopic and histopathological examination, pathogen detection as well as analyses of the immune system. Additionally, a tissue biobank has been established to support future research. To date, 30 bats representing 11 species have been examined. Causes of mortality were classified according to the WHO ICD-11 system. Findings are integrated into science communication and educational activities.
Trauma was the leading cause of mortality (40%; n = 12), mainly blunt force trauma consistent with collisions, and sharp trauma consistent with predation. Combined infection and trauma (comorbidity; order unclear) represented the second most common cause (20%; n = 6), followed by infection alone (17%; n = 5), including one Daubenton's bat with polioencephalitis associated with European bat lyssavirus 2 infection. Furthermore, 63% (n = 19) of examined bats revealed predominantly subclinical endoparasitic infections, mainly trematodes. Continued health surveillance of endemic bats will improve our understanding of host–pathogen interactions and support the One Health approach. A key challenge remains balancing public awareness of health risks with bat conservation.

## Keywords

bat health, conservation, veterinary pathology, surveillance, wildlife health, One Health, zoonoses, pande

## Registration ID

OHS26-169

## Professional Status of the Speaker

Postdoc

## Junior Scientist Status

Yes, I am a Junior Scientist.

**Author:** Dr ARNECKE, Amelie Lisa (Institute of Veterinary Pathology, Faculty of Veterinary Medicine, Leipzig University)

**Co-authors:** Dr FRITZE, Marcus (Competence Center for Bat Conservation in Saxony-Anhalt, Karst Landscape Biosphere Reserve, South Harz, Germany; Applied Zoology and Nature Conservation, Greifswald University, Greifswald, Germany; German Bat Observatory); LUDWIG, Maxim (Office for Environmental Protection, City of

Leipzig); Dr HINTZEN, Juliane (Institute of Parasitology, Faculty of Veterinary Medicine, Leipzig University); Dr DELLING, Cora (Institute of Parasitology, Faculty of Veterinary Medicine, Leipzig University); Dr HEENEMANN, Kristin (Institute of Virology, Faculty of Veterinary Medicine, Leipzig University); Dr MÜHLDORFER, Kristin (, Department of Wildlife Diseases, Leibniz Institute for Zoo and Wildlife Research); Dr RUDOLPH, Nicole (Saxon State Laboratory of Health and Veterinary Affairs, Leipzig); Dr HARDT, Michael (Saxon State Laboratory of Health and Veterinary Affairs, Leipzig); Dr KONRATH, Andrea (Saxon State Laboratory of Health and Veterinary Affairs, Leipzig); Dr MÜLLER, Thomas (Institute of Molecular Virology and Cell Biology, Friedrich-Loeffler-Institut (FLI); WHO, WOAH, FAO and National Reference Laboratory for Rabies); Dr FREULING, Conrad (Institute of Molecular Virology and Cell Biology, Friedrich-Loeffler-Institut (FLI); WHO, WOAH, FAO and National Reference Laboratory for Rabies); Prof. RESS, Susanne (Education in a Digitalized World / Digital Education, Institute of Education, Technische Universität Berlin,); Prof. ULRICH, Reiner (Institute of Veterinary Pathology, Faculty of Veterinary Medicine, Leipzig University)

**Presenter:** Dr ARNECKE, Amelie Lisa (Institute of Veterinary Pathology, Faculty of Veterinary Medicine, Leipzig University)

**Session Classification:** Snacks & Poster Viewing I

**Track Classification:** Pandemic Preparedness & Prevention