INSTITUTE OF VERTEBRATE BIOLOGY
CZECH ACADEMY OF SCIENCES

Institute of Vertebrate Biology of the CAS

Wildlife, biodiversity and ecosystem perspectives as a core contribution to One Health



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HR EXCELLENCE IN RESEARCH

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Understanding vertebrates in a changing world

KEY AREAS OF EXPERTISE

EVOLUTION & ECOLOGY
- Evolutionary processes
- Speciation & hybridization
- Behavioural ecology
- Physiological ecology

BIODIVERSITY & CONSERVATION
- Biodiversity monitoring
- Conservation genetics
- Endangered species
- Ecosystem management

WILDLIFE HEALTH & ONE HEALTH
- Host–parasite interactions
- Microbiomes
- Zoonotic & emerging infectious diseases
- Wildlife reservoirs

GENETICS, GENOMICS & BIOINFORMATICS
- Molecular and genomic approaches
- Wildlife population genetics
- Bioinformatics & data analysis

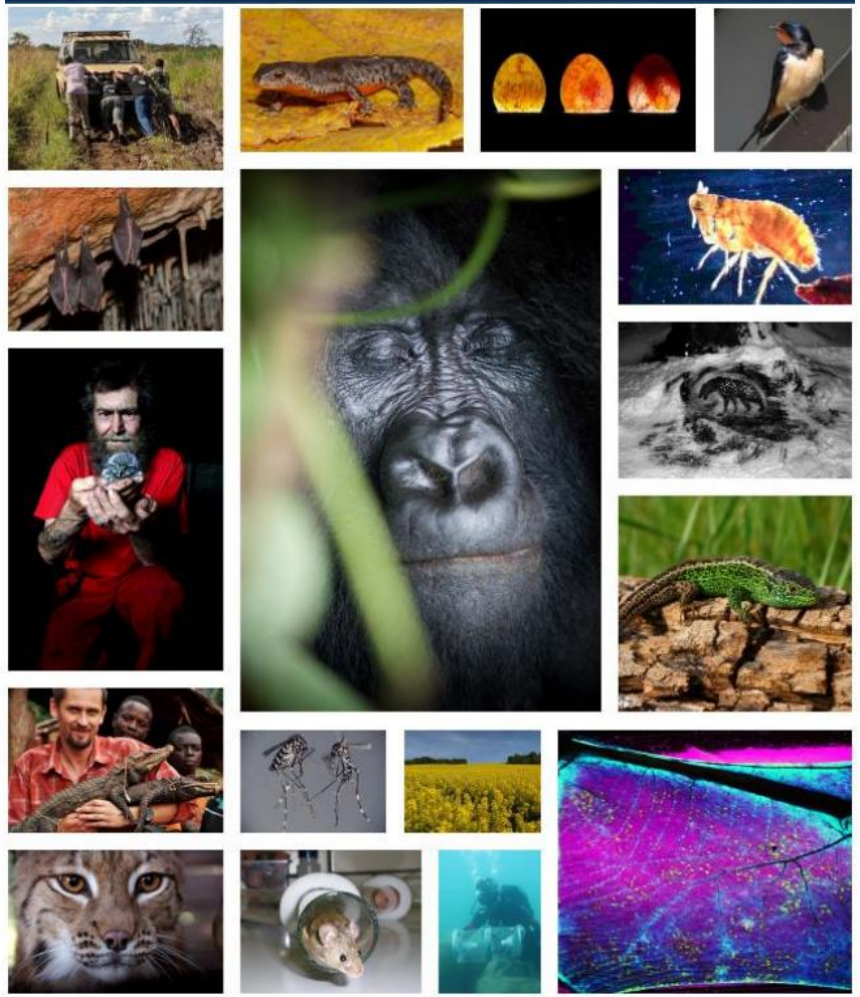
A C G T A G C T

GLOBAL ENVIRONMENTAL CHANGE
- Freshwater & agricultural ecosystems
- Biological invasions
- Environmental change & climate impacts

EUROPE • AFRICA • ASIA

Long-term field research
+ advanced molecular approaches

From fundamental research to biodiversity conservation, ecosystem management & public health



WHAT WE BRING TO ONE HEALTH

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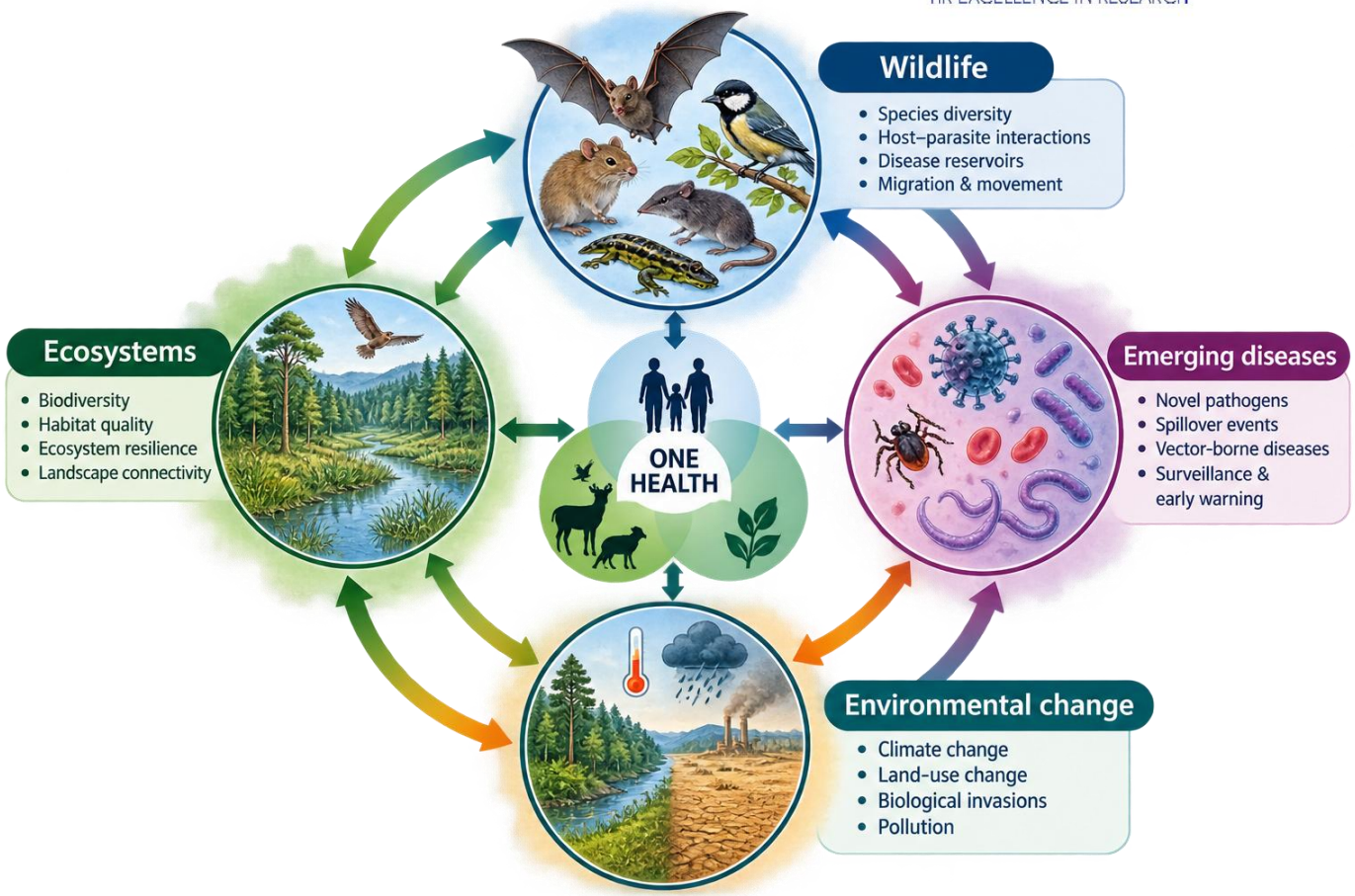
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Wildlife health & disease ecology

- zoonotic and emerging pathogens,
- wildlife reservoirs,
- host–parasite interactions,
- vectors and pathogen surveillance

Biodiversity & ecosystem health

- long-term monitoring,
- conservation genetics,
- invasive species,
- landscape change and ecosystem resilience



Integrated approaches

- field ecology combined with genomics, molecular biology, parasitology and microbiome research

FROM EVIDENCE TO COLLABORATION AND POLICY



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Research priorities

- Emerging diseases & wildlife pathogens
- Human–wildlife–livestock interfaces
- Biodiversity change & disease dynamics

International partnerships

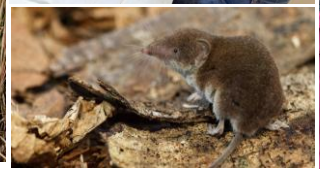
- Long-term research in Europe, Africa and Asia
- Capacity building, student training and technology transfer
- Strong links with conservation and academic partners

Science for policy

- Evidence for biodiversity & ecosystem health
- Emerging disease preparedness
- Science–policy interface for One Health


















OUR DIRECTION: Strengthening One Health coordination

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- Connect biodiversity science, disease ecology and environmental change — and strengthen the science–policy interface.

