



**The Institute of Nature Conservation
of Polish Academy of Sciences in Krakow
has a pleasure to announce the interactive workshop**

**Conservation Medicine
in the Anthropocene:
Applications of Modern
21st Century Technologies
to the Assessment
of Wildlife Health**

to be held on 15th of May 2019





Photo: A. Sergiel

The extent to which anthropogenic disturbances such as climate change, habitat degradation, and pollution will impact populations and communities of wild animals is an issue of great uncertainty among ecologists and wildlife managers. A mechanistic approach is needed to resolve this uncertainty in order to better understand the factors that control the distribution and abundance of wildlife (defined here as all non-human animals). The modern biological research laboratory has evolved dramatically in the past decade, and there are many new quantitative tools available to address this issue. Although these tools are being used successfully in human biomedical research, their application to the conservation of wild animal species is only just beginning. The Keynote Speakers will introduce some of the tools: (1) measurement of hormones in non-traditional matrices (e.g., hair, urine, feces, saliva, blubber, scales, whole-body animals), (2) 'omics' techniques (e.g., transcriptomics, proteomics, metabolomics), (3) major histocompatibility complexes (MHC), and (4) stable isotopes. There are many emerging opportunities to apply such techniques to wildlife ecology, which may contribute significantly to ensuring the sustainability of populations, communities and biodiversity.



All the interested participants are requested to make their registration at the earliest as the number of participants is limited to 30; due date is 6th of May 2019 (Monday, by midnight). Please fill your registration form at <https://forms.gle/ufYlWfgcJmbH1MR6A> where we ask also to provide us with the short introduction of what you do. We want this interactive workshop to be an opportunity for researchers among diverse disciplines to meet and discuss applications and opportunities for their research. Selected participants will provide a brief 5-minute presentation (maximum five slides) describing their research. Each presentation will be followed by questions and discussion of potential applications of how such techniques could be utilized.

Keynote Speakers

David Janz

Professor of Veterinary Biomedical Sciences, University of Saskatchewan, Canada

Nuria Selva

Associate Professor of Ecology, Institute of Nature Conservation of Polish Academy of Sciences, Krakow

Aleksandra Biedrzycka

Associate Professor of Conservation Genetics, Institute of Nature Conservation of Polish Academy of Sciences, Krakow

Djuro Huber

Professor of Biology, Institute of Nature Conservation of Polish Academy of Sciences, Krakow

Agnieszka Sergiel

PhD, Assistant Professor, Institute of Nature Conservation of Polish Academy of Sciences, Krakow





Preliminary program

- 09:00-09:05 Introduction
- 09:05-09:25 *“Emerging opportunities for application of modern technologies to conservation of wild animals”* (David Janz)
- 09:25-10:05 Four brief presentations (to be decided - TBD) followed by questions and discussion
- 10:05-10:25 *“Ecological applications of stable isotopes”* (Nuria Selva)
- 10:25-11:05 Four brief presentations (TBD) followed by questions and discussion
- 11:05-11:20 Coffee break
- 11:20-11:40 *“Immunogenetics of wild populations: MHC and beyond”* (Aleksandra Biedrzycka)
- 11:40-12:20 Four brief presentations (TBD) followed by questions and discussion
- 12:20-12:30 Case study: *“Pathogens in focus - BearHealth project”* (Djuro Huber)
- 12:30-12:40 Case study: *“Stress protocol: an assessment of the overall stress response through the use of multiple indicators”* (Agnieszka Sergiel)
- 12:40-13:20 Four brief presentations (TBD) followed by questions and discussion
- 13:20-14:00 Overall workshop discussion; concluding remarks