



Life
**WITH
BEARS**

26th INTERNATIONAL CONFERENCE ON
BEAR RESEARCH & MANAGEMENT

Human-bear coexistence in human dominated and politically fragmented landscapes.

**BOOK OF
ABSTRACTS**

Ljubljana, Slovenia 16 - 21 September 2018
Conference Venue: The Grand Hotel Union



www.lifewithbears.eu
#lifewithbears
#26thIBAconference

Book of Abstracts available
@www.lifewithbears.eu



Published by: University of Ljubljana

Cover design and layout: Anja Nič

Editor: Aleksandra Majić Skrbinšek


Edition: e-book

Ljubljana, 2018

Suggested citation: Majić Skrbinšek A. (Ed.), 2018, Human-bear coexistence in human dominated and politically fragmented landscapes. Abstract book of the 26th International conference on Bear Research and Management, 16-21 September, Ljubljana, Slovenia.

ISBN 978-961-6410-52-6 (pdf)

COBISS.SI-ID: 296548096



Session:

Human-bear interactions and management

BROWN BEAR ATTACKS ON HUMANS: A WORLDWIDE OVERVIEW

Giulia Bombieri¹, Javier Naves², María del Mar Delgado¹, Alberto Fernández-Gil², José Vicente López-Bao¹, Nuria Selva³, Carlos Bautista³, Tatjana Bepalova⁴, Vladimir Bobrov⁵, Vladimir Bolshakov⁶, Svetlana Bondarchuk⁷, Jean-Jacques Camarra⁸, Silviu Chiriac⁹, Paolo Ciucci¹⁰, Aleksandar Dutsov¹¹, Ihor Dyky¹², José M. Fedriani¹³, Alberto García-Rodríguez³, Pedro José Garrote¹³, Sergey Gashev¹⁴, Claudio Groff¹⁵, Bernhard Gutleb¹⁶, Michal Haring¹⁷, Sauli Härkönen¹⁸, Djuro Huber¹⁹, Yury Kalinkin²⁰, Alexandros A. Karamanlidis²¹, Vladimir Karpin²², Vjacheslav Kastrikin²³, Lyudmila Khlyap⁵, Pavlo Khoetsky²⁴, Ilpo Kojola²⁵, Andrei Korolev²⁶, Nikolai Korytin⁶, Vladimir Kozsheechkin²⁷, Miha Krofel²⁸, Juri Kurhinen²⁹, Irina Kuznetsova⁶, Evgeniy Larin⁴, Alena Levykh¹⁴, Viktor Mamontov³⁰, Peep Männil³¹, Dime Melovski³², Yorgos Mertzanis³³, Artur Meydus^{34,35}, Harri Norberg¹⁸, Santiago Palazón³⁶, Lucian Marius Pătrascu³⁷, Klara Pavlova³⁸, Paolo Pedrini³⁹, Pierre-Yves Quenette⁸, Eloy Revilla², Robin Rigg¹⁷, Yuri Rozhkov⁴⁰, Luca Francesco Russo¹, Alexander Rykov⁴¹, Lidia Saburova³⁰, Veronica Sahlén⁴², Zoya Selyunina⁴³, Ivan V. Seryodkin⁴⁴, Aleksandr Shelekhov, Aleksander Shishikin⁴⁵, Maryna Shkvyria⁴⁶, Vadim Sidorovich⁴⁷, Vladimir Sopin^{34,35}, Ole-Gunnar Støen⁴², Jozef Stofik⁴⁸, Jon Swenson⁴², Dmitry Tirski⁴⁹, Aleksander Vasin⁵⁰, Petter Wabakken⁵¹, Lyubov Yarushina⁴, Tomasz Zwijacz-Kozica⁵², Vincenzo Penteriani⁵³

¹Research Unit of Biodiversity (UMIB, UO-CSIC-PA), Oviedo University, Spain

²Dpto Conservation Biology, Doñana Biological Station-CSIC, Spain

³Institute of Nature Conservation, Polish Academy of Sciences, Poland

⁴Kondinskies Lakes National Park, Russia

⁵A.N. Severtsov Institute of Ecology and Evolution, Russia

⁶Institute of Plant and Animal Ecology, Ural Branch, Russian Academy of Sciences, Russia

⁷Sikhote-Alin State Nature Biosphere Reserve, Russia

⁸French National Hunting and Wildlife Agency (ONCFS)

⁹LIFEURSUS Project, Environmental Protection Agency, Romania

¹⁰Dpto Biology and Biotechnologies, La Sapienza University of Rome, Italy

¹¹Balkani Wildlife Society, Bulgaria

¹²Dpto Fauna and Systematics of Vertebrate, Ivan Franko National University of Lviv, Ukraine

¹³Centre for Applied Ecology "Prof. Baeta Neves"/InBIO, Institute of Agronomy, University of Lisbon, Portugal

¹⁴Tyumen State University, Russia

¹⁵Forest and Wildlife Service, Provincia Autonoma Trento, Italy

¹⁶Nature Conservation, Government of Carinthia, Austria

¹⁷Slovak Wildlife Society, Slovakia

¹⁸Finnish Wildlife Agency, Finland

¹⁹Dpto of Biology, University of Zagreb, Croatia

²⁰Altai State Nature Biosphere Reserve, Russia

²¹ARCTUROS Civil Society for the Protection and Management of Wildlife, Greece

²²Forest Research Institute, Karelian Research Centre, Russian Academy of Sciences, Russia

²³Hingansky, Russia

²⁴Lviv Forestry and Wood-technology University, Ukraine

²⁵Natural Resources Inst, University of Oulu, Finland

²⁶Institute of Biology, Komi Science Centre, Russian Academy of Sciences, Russia

²⁷State Nature Reserve Stolby, Russia

²⁸Biotechnical Faculty, Dept. for Forestry, University of Ljubljana, Slovenia

²⁹University of Helsinki, Finland

³⁰Federal Center for Integrated Arctic Research, Russian Academy of Sciences, Russia

- ³¹*Estonian Environmental Agency, Estonia*
- ³²*Macedonian Ecological Society, Dpto Wildlife Sciences, Georg-August University, Macedonia*
- ³³*Callisto - Wildlife and Nature Conservation Society, Greece*
- ³⁴*State Natural Reserve Tunguskiy, Russia*
- ³⁵*Krasnoyarsk State Pedagogical University VP, Russia*
- ³⁶*Dpto Environment, Generalitat of Catalonia, Spain*
- ³⁷*Association Biological Diversity Conservation, Romania*
- ³⁸*FSBI "Zeya State Nature Reserve", Russia*
- ³⁹*Muse - Museo delle Scienze, Italy*
- ⁴⁰*State Nature Reserve Olekminsky, Russia*
- ⁴¹*Pinezhsky State Nature Reserve, Russia*
- ⁴²*Dpto Ecology and Natural Resource Management, Norwegian University of Life Sciences, Norway*
- ⁴³*Black Sea Biosphere Reserve, Russia*
- ⁴⁴*Pacific Geographical Institute, Russian Academy of Sciences, Russia*
- ⁴⁵*V. N. Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia*
- ⁴⁶*Dpto Fauna and Systematics of Vertebrates, Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine*
- ⁴⁷*Institute of Zoology, National Academy of Science, Belarus*
- ⁴⁸*Poloniny National Park, Poland*
- ⁴⁹*State Nature Reserve Olekminsky, Russia*
- ⁵⁰*State Nature Reserve Malaya Sosva, Russia*
- ⁵¹*Faculty of Applied Ecology and Agricultural Sciences, Hedmark University College, Norway*
- ⁵²*Tatra National Park, Poland*
- ⁵³*Instituto Pirenaico de Ecología, Spain*

Abstract

Although extremely rare compared to incidents involving other wildlife, attacks on humans by large carnivores have been increasingly reported globally in the last decades. The expansion of the human population and activities within areas occupied by large carnivores together with the ongoing recovery of several populations of these species are likely behind this trend. This scenario is also true for brown bears *Ursus arctos*, where attacks on humans can negatively affect public tolerance toward bears and their conservation. Understanding the dynamics behind such incidents can help to reduce their occurrence, consequently improving both human safety and support for brown bear conservation. Our goal here is to provide a general overview of the phenomenon by analysing and comparing scenarios of brown bear attacks on humans worldwide. Specifically, we aim to investigate several aspects such as (a) spatio-temporal patterns of attacks at various levels and (b) bear and human characteristics (e.g., age and sex, activity and behaviour at the time of the attack). We recorded a total of 759 attacks by brown bears on humans between 1970 and 2015: 271 in North America (57 fatalities), 137 in Russia (55 fatalities) and 351 in Europe (23 fatalities). Globally, attacks increased over the period considered. Most attacks occurred during summer (55%) and during daylight (69%). Almost all human victims were adult (98%) and usually male (88%). At the time of the attack, 46% of the humans were carrying out leisure activities (e.g., hiking, camping) whereas 28% were hunting and 26% working (e.g., shepherding, farming, logging). The most prevalent attack scenarios were encounters with females with cubs (38%), followed by wounded bears (11%), predatory attacks (11%) and the presence of dogs (10%). We will discuss management implications of this study and give recommendations to avoid the occurrence of such incidents.