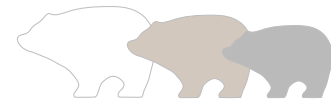


POSTER PRESENTERS & SESSIONS



PHYSIOLOGY

POSTERS 1 – 17 TIKAHTNU FOYER

ASIATIC BLACK BEAR

Cardiorespiratory Dose-response Relationship of Isoflurane in Asiatic Black Bear (*Ursus thibetanus*) During Spontaneous Ventilation

Author: Dong-Hyuk Jeong

Serum Chemistry Values of Re-introduced Asiatic Black Bears (*Ursus thibetanus*) in South Korea

Author: Dong-Hyuk Jeong

BLACK BEAR

Postnatal Cub Development in American Black Bears

Author: Colleen Olfenbuttel

Determinants of in Utero and Postnatal Reproductive Success, and the Possibility of Cryptic Female Choice in American Black Bears, *Ursus americanus*

*Author: Mark Teshera**

BROWN BEAR/GRIZZLY BEAR

Bile Acids during Dormancy in Brown Bears

Author: Fabrice Bertile

Lipid Composition of Free-Ranging Hibernating Brown Bears

Author: Isabelle Cherry

Endogenous Lipoprotein Metabolism in Free-Ranging Hibernating Brown Bears

Author: Chantal Simon

Metabolism of Eicosanoids in Free-Ranging Hibernating Brown Bears

*Author: Alina Evans**

Physiological Stress among Grizzly Bears across a Multi-Use Landscape

Author: Diana Lafferty

Health and Reproductive Status of the Brown Bear Population in Croatia

Author: Slaven Relji

Omics Characterization of Muscle Responses to Inactivity in Brown Bears during Dormancy

Author: Georg Tascher

Analysis of Fecal Glucocorticoid (FGM) Concentrations in Captive Brown Bears (*Ursus arctos*)

Author: Alyssa Tews

The Seasonal Change of Sebaceous Glands in the Back Skin of Male Adult Brown Bear (*Ursus arctos*): The Possibility of Regulation by Testosterone

*Author: Jumpei Tomiyasu**

Trans Fatty Acids in Subcutaneous Adipose Tissue in Brown Bears in Croatia

Author: Lana Vrankovic

Erythrocytes Antioxidant Protection and Fatty Acid Composition in Brown Bears in Croatia

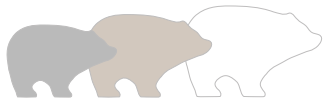
Author: Lana Vrankovic

Spondylodiscitis in Brown Bear (*Ursus arctos*)? A Case Report

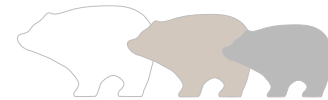
Author: Tomasz Zwijacz

Airborne Fungi in the Cave Frequently Used as a Den by Brown Bear- Preliminary Study

Author: Tomasz Zwijacz



POSTER PRESENTERS & SESSIONS



TECHNIQUES

POSTERS 18 – 26 TIKAHTNU FOYER

ASIATIC BLACK BEAR

The Period of Annuli Formation and Relationship between Annuli Width and Aging in Asiatic Black Bears

Author: Yukino Aoki

The Assessment of Culvert-Trap Site Adequacy of Asiatic Black Bear (*Ursus thibetanus ussuricus*)

Author: Gye Seon Kim

BROWN BEAR/GRIZZLY BEAR

Capture-Related Mortalities in Brown Bears in Scandinavia 1984-2015: A Review of 2,047 Captures

Author: Jon M. Arnemo

Designing, Testing and Installing Bear-Resistant Containers in Europe

Author: Michal Haring

Long-Term Studies Beyond Parks and Protected Areas - Advancing Bear Research at Commercial Bear-Viewing Sites (A Case Study of Knight Inlet Lodge)

Author: Owen Nevin

Estimating Grizzly Bear (*Ursus arctos*) Population Size in Northern Alaska Using Advanced Distance Sampling

Author: Harry Reynolds

A GIS Approach to Identifying Connectivity Potential between Brown Bear (*Ursus arctos*) Habitat in Greece

*Author: Angeliki Savvantoglou**

Specific Features Regarding Brown Bear Immobilization in Romania Using General Anesthetics and Sedatives

Author: George Sirbu

Brown Bear Recolonization, Population Structure and Status in Southern Scandinavia: Transboundary Research and Monitoring by Low-Budget Methods, 1982-2015

Author: Petter Wabakken

MANAGEMENT

POSTERS 27 – 39 TIKAHTNU FOYER

Better Bear Management Using Spatial Models to Refine Distance Sampling Estimates of Population Size

Author: Earl F. Becker

ASIATIC BLACK BEAR

Threat Assessment of Asiatic Bears in India

*Author: Biba Jasmine**

Conservation Priority Areas of Rare Mammals under the Background of Climate Change in Northeastern China

Author: Luana Xiaofeng

BLACK BEAR

Identifying American Black Bear (*Ursus americanus*) Highway Crossings in Central Georgia, USA

Author: Mike Hooker

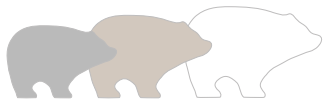
BROWN BEAR/GRIZZLY BEAR

Tracking the Brown Bears in Northeastern Turkey

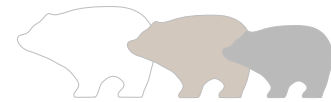
Author: Aysegul Coban

Development of Spatially and Temporally Relevant Habitat Classifications for Barren-ground Grizzly Bear Research, Conservation, and Management in the Central Canadian Arctic

*Author: Rianne Diepstraten**



POSTER PRESENTERS & SESSIONS



Bear Use Trends at McNeil River State Game Sanctuary

Author: Thomas Griffin

Himalayan Brown Bear Predation on Livestock in Pangi Valley, Himachal Pradesh, India

Author: Bipan Chand Rathore

Crossing Countries and Highways in the Carpathians: The Dispersal Story of Iwo

Author: Nuria Selva

When Should Maternal Care Terminate? The Importance of Offspring Mass in the Scandinavian Brown Bear

*Author: Joanie Van de Walle**

Since when were Captured Asiatic Black Bears Dependent on Human Food?

Author: Rumiko Nakashita

How Does Japanese Black Bear Get over Summer Period When Food Resources are Limited?

Author: Koji Yamazaki

Impact of Wildlife on Seed Survival of *Cyclobalanopsis Glauca* in Defen, Yushan National Park, Taiwan

Author: Kuo Yen Jen

BROWN BEAR/GRIZZLY BEAR

Dietary Variation in Interior Alaskan Black and Grizzly Bears Based on Stable Isotopes

Author: Torsten Bentzen

Diet and Macronutrient Optimization in Wild Ursids: a Comparison of Grizzly Bears with Sympatric and Allopatric Black Bears

Author: Cecily Costello

Evaluation of the Brown Bear Diet, in Spring-Mid Summer Period in Brasov-Prahovei Valey Region

Author: Mihai Fedorca

Using Multiple Stable Isotope Systems to Reconstruct the Diets of Yellowstone Grizzly Bears

Author: John Hopkins

Do Forest Harvest Retention Patches and Edges Enhance Food Resources for Grizzly Bears?

Author: Terrence Larsen

Annual Effective Dose of Caesium (¹³⁷Cs, ¹³⁴Cs) Intake by Bear Meat and Entrails in Croatia

Author: Gordana Marović

POLAR BEAR

Harvest Monitoring for Polar Bears in the Face of Climate Change

Author: R. Bradley Benter

Polar Bear Management in the United States

Author: Hilary Cooley

A Critical Examination of the Inconsistent Status Designations of the Polar Bear under United States, Canadian, and International Legal Regimes

Author: Brendan Cummings

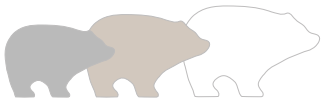
FEEDING ECOLOGY AND DIET

POSTERS 40 – 55 TIKAHTNU FOYER

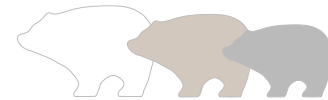
ASIATIC BLACK BEAR

The Prediction of Seed Shadows of Woody Plants by Released Asiatic Black Bear (*Ursus thibetanus ussuricus*) in the Jirisan National Park

Author: Dae Ho Jung



POSTER PRESENTERS & SESSIONS



Splitting Hairs: Dietary Ecology of Alaskan Brown Bears and the Utility of Sectional vs. Whole Hair Sampling for Use in Stable Isotope Dietary Mixing Models

Author: Matthew Rogers

Testing the Compatibility of Laboratory Procedures: Stable Isotopes and Cortisol Analysis in Brown Bear Hair

Author: Agnieszka Sergiel

POLAR BEAR

Population-Level and Temporal Trends in Polar Bear (*Ursus maritimus*) Foraging Ecology in Western Hudson Bay

*Author: Amy Johnson**

Assessing and Forecasting Starvation Trends in Southern Hudson Bay Polar Bears Using Dynamic Energy Budget Models

Author: Allison E. Slater

SPECTACLED BEAR

Characterization of the Gut Microbiota of Spectacled Bears (*Tremarctos ornatus*) from Feces: Insights into their Feeding Ecology

*Author: Andrea Borbon**

SUN BEAR

Linking Berry Yields with High Resolution Weather Variables to Identify Potential Future Climate Change Effects on Bear Foods

*Author: Anne Hertel**

DISEASE AND PARASITES

POSTERS 56 – 59 TIKAHTNU FOYER

ANDEAN BEAR

Approaching the Andean Bear Alopecia Syndrome: Challenges of Ex-Situ Population Conservation

Author: Nadine Bechstein

ASIATIC BLACK BEAR

Blood Characteristics and Parasite Detection of Wild Formosan Black Bears (*Ursus thibetanus formosanus*)

*Author: Ting-Rong Lee**

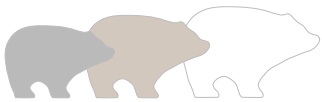
POLAR BEAR

Polar Bears as a Sentinel for Emerging Wildlife Zoonoses: Past and Present Occurrence of *Brucella* Spp., *Coxiella Burnetii*, and *Toxoplasma Gondii* in the Southern Beaufort Sea Population

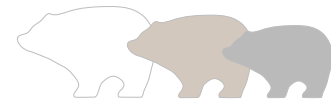
Author: Todd Atwood

When Sharing Is Not Caring: An Arctic-Host Parasite Sharing Network

*Author: Sophie Watson**



POSTER PRESENTERS & SESSIONS



BEHAVIOR

POSTERS 60 – 67 TIKAHTNU A/B

ANDEAN BEAR

Marking Behavior of Andean Bears in an Ecuadorian Cloud Forest: A Pilot Study
Author: Eva Filipczykova

ASIATIC BLACK BEAR

Daily Activity Patterns of Brown Bears and Asiatic Black Bears in the Russian Far East
Author: Iurii Petrunenko

Marking Behavior of Brown Bears and Asiatic Black Bears in the Russian Far East
Author: Ivan Seryodkin

BLACK BEAR

Activity Patterns and Denning Behavior of Black Bears in Big Bend National Park, Texas
Author: Skyler Stevens

BROWN BEAR/GRIZZLY BEAR

Selection of Marking Trees by Brown Bears in Slovakia
*Author: Jan Barilla**

The Use of Tri-Axial Accelerometers to Identify Behavior of Bears
*Author: Patricia Graf**

Optimizing Dinner Time in a Risky Restaurant: Temporal Segregation of Brown Bears at Concentrated Food Sources
Author: Miha Krofel

Behavioral Patterns of Brown Bears for Intraspecific Communication with Rub Trees
Author: Yoshikazu Sato

HABITAT

POSTERS 68 - 84 TIKAHTNU A/B

ASIATIC BLACK BEAR

Detection of Fegaceae Areas Based on High-Resolution Remote Sensing Imagery for Asiatic Black Bear Restoration Project
Author: Byung-Seon Kahng

BLACK BEAR

Ecological Niche Modelling Supports Lineage Differentiation for the American Black Bear (*Ursus americanus*)
*Author: Carlos Luna**

Habitat Connectivity for Recolonizing American Black Bears in Mississippi
Author: Mariela Gantchoff

Ecology of Black Bears (*Ursus americanus*) in Urban/Suburban Habitats
Author: Nicholas Gould-Strules

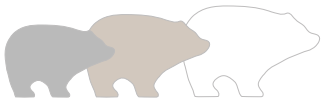
Niche Separation of Sympatric Grizzly and Black Bear
*Author: Amy Macleod**

Agent Based Modelling of Black Bear Foraging in Whistler, BC: An Effort in Reducing Human-bear Interactions
Author: Jessa Marley

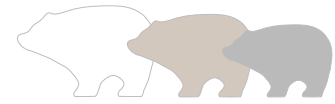
Black Bears Recolonize Wildlife Corridor between Ocala and Osceola National Forests, Florida, USA
Author: Brian Scheick

BROWN BEAR/GRIZZLY BEAR

An Integrated Approach to Resource Use of Brown Bears in Katmai National Park, Alaska
*Author: Joy Erlenbach**



POSTER PRESENTERS & SESSIONS



Grizzly Bear Denning Ecology and the Effects of Human Activity in Arctic Alaska

Author: Richard Shideler

Brown Bear in Ukraine: Ecological Features

Author: Maryna Shkvyria

Ecology of Brown Bears (*Ursus arctos*) within a Coastal Region of Katmai National Park Alaska

Author: Tom Smith

Multi-Scale Attributes of Den Sites, Selection of Den Habitats, and Denning Phenology of Grizzly Bears in North-Central Alaska

Author: Mathew Sorum

GOBI BEAR

Habitat Modeling of Mazaalai or Gobi Bear (*Ursus gobiensis* Sokolov Et Orlov 1990) in Mongolia

Author: Enkhbileg Dulamtseren

POLAR BEAR

The Occurrence of Historical Polar Bear Maternal Denning on a Man-made Feature, North Slope, Alaska

Author: Craig Perham

SLOTH BEAR

Connectivity between Sloth Bear Populations in the Central Indian Landscape

*Author: Prachi Thatte**

SPECTACLED BEAR

The Spectacled Bear (*Tremarctos ornatus*) is a Disperser of Seeds in the Cloud Forest of the Southern Andes of the Peru

Author: Denisse Mateo-Chero

GENETICS

POSTERS 85 – 88 TIKAHTNU C/D

ANDEAN BEAR

D-Loop Primer Design to Analyze the Genetic Diversity of the Andean Bear from an Ecuadorian Population of Northwestern Quito

*Author: Gabriela Bruque**

BROWN BEAR/GRIZZLY BEAR

Preliminary Results in Testing the Influence of Habituation on Genetic Structure of Brown Bears in Brasov-Prahova Valley Area

Author: A. Cotovelea

The Methodological Investigation of Brown Bear Individual Identification Based on Genetic Analysis Using Fecal DNA in Hokkaido, Japan

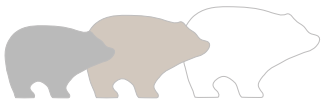
Author: Mami Kondo

Environmental DNA from Residual Saliva for Efficient Noninvasive Genetic Monitoring of Brown Bears (*Ursus arctos*)

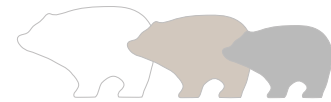
*Author: Rachel Wheat**

Genetic Status and Structure of Brown Bears in the Bryansk Region (Russia)

Author: Elena Sitnikova



POSTER PRESENTERS & SESSIONS



DEMOGRAPHY/ABUNDANCE/ DENSITY

POSTERS 89 - 101 TIKAHTNU C/D

ASIATIC BLACK BEAR

The Relative Abundance of Formosan Black Bears in Taiwan National Parks

Author: Hsin Chien Tsai

BLACK BEAR

Estimating Population Parameters of the American Black Bear (*Ursus americanus*) in Central Georgia, USA

*Author: Annaliese Ashley**

Using Bayesian Iterative Removal and Updating to Assess Pre-Harvest Black Bear Population Abundance in North Carolina

Author: Joe Folta

Spatially Explicit Estimates of Population Abundance and Density of the Florida Black Bear (*Ursus americanus floridanus*)

*Author: Jacob Humm**

Demography of Black Bears in Remote Boreal Alaska

Author: Joshua Peirce

Harvest Rates of Black Bears on Prince of Wales Island, Southeast Alaska, 2007-2009

Author: Boyd Porter

BROWN BEAR/GRIZZLY BEAR

Temporal Analyses of Effective Population Size during Recovery and Range Expansion in the Northern European Brown Bear

Author: Alexander Kopatz

Summer Food Availability, Body Condition, and Cub Survival in Female Brown Bears in the Rusha Area, Shiretoko Peninsula, Hokkaido, Japan

Author: Michito Shimozuru

Survival and Productivity of Female Brown Bears on Sitkalidak Island, AK

Author: Nathan Svoboda

Multiple Estimates of Effective Population Size for Monitoring Yellowstone Grizzly Bears

Author: Pauline Kamath

SUN BEAR

Connecting Data for a Range-wide Assessment of Sun Bears (*Helarctos malayanus*)

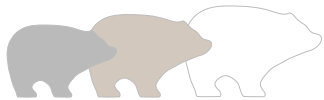
*Author: Lorraine Scotson**

Multiple Datatypes and Integrated Population Models: How to Improve Our Knowledge of Bears and Other Apex Predators Population Dynamics

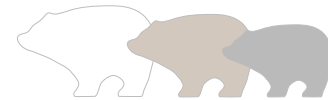
Author: Florent Bled

Combining Multiple Sources of Information from Evolving Long-Term Monitoring Studies to Estimate Cause-Specific Survival

Author: Christophe Bonenfant



POSTER PRESENTERS & SESSIONS



HUMAN-BEAR CONFLICT

POSTERS 102 – 129 SECOND LEVEL FOYER

Aversive Conditioning to Keep Bears Wary of Humans

Author: Lori Homstol

Mapping Human-Bear Conflicts in Rural & Urbanizing Areas: Creating Toolboxes for Response

Author: Kathryn Mazaika

Human Behavior can Trigger Bear Attacks in North America

Author: Vincenzo Penteriani

ASIATIC BLACK BEAR

Attacks by Asiatic black bears in District Mansehra, Pakistan: 2001-2015

Author: Muhammad Awais

BLACK BEAR

The Spatial Characteristics of Human-Black Bear Conflict Spots - The Case Study of Takayama City and Its Surroundings in Gifu Prefecture

Author: Natsuko Fukuda

New Technologies are Saving Bears at Yosemite National Park

Author: Ryan Leahy

Spatial Distribution of Black Bear Incidents in Michigan

Author: Jamie McFadden-Hiller

BROWN BEAR/GRIZZLY BEAR

Patterns and Correlates of Claims and Compensation for Brown Bear Damages at the Continental Scale

Author: Carlos Bautista

Fifteen Years of Human-Brown Bear Incidents in the Romanian Carpathians

Author: Silviu Chiriac

Physiological Effects of Human Approach and Hunting with Dogs in the Scandinavian Brown Bear (*Ursus arctos*)

Author: Boris Fuchs

Can Managing Natural Attractants Reduce Human-bear Conflicts in Campgrounds?

Author: Scott Gilbert

Bears Coping with Croatian Highways

Author: Daniele De Angelis

The Influence of Urban Development on the Ecology and Ethology of Brown Bear in Romanian Carpathians

Author: Ramon Jurj

New Technologies are Saving Bears at Yosemite National Park

Author: Ryan Leahy

Characteristics of Grizzly Bear Sightings from the North Slope Oil Fields

*Author: Nils Pedersen**

Impacts of Human Hunting on the Foraging Behavior of Brown Bears in Sweden

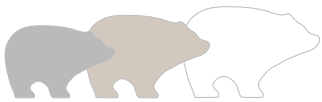
*Author: Hanna Kavli Lodberg-Holm**

Do Wolves Avoid Brown Bears? Large Scale Effects of Humans and Bears on Wolf Pair Establishment in Scandinavia

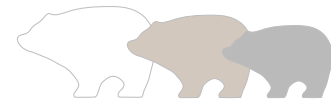
*Author: Cyril Milleret**

Do Scandinavian Brown Bears (*Ursus arctos*) Avoid Human Dominated Habitats Following Encounters with Humans?

Author: Gro Kvelprud Moen



POSTER PRESENTERS & SESSIONS



Brown Bear Attacks on Humans in Europe: An Overview for the Period 2000-2015

Author: Javier Naves

Brown Bear Damages and Identification of Human-bear Conflict Hotspots in Croatia

Author: Dario Hipolito

Defensive Grizzly Bear Attack at a Den Site in Banff National Park

Author: Jon Stuart-Smith

Does Poaching Matter? Illegal Human Caused Mortality of Brown Bear and Wolf in Finland

*Author: Johanna Suutarinen**

Utilization of UAV for Brown Bear Damage Detection at Corn Fields in Hokkaido, Japan

Author: Hifumi Tsuruga

POLAR BEAR

An Evaluation of Human-Polar Bear (Ursus maritimus) Interactions on Alaska's North Slope

*Author: Wesley Larson**

Increasing Oil Spill Response Capabilities for Polar Bears in Alaska

Author: Susanne Miller

Mitigation of Human and Polar Bear Conflicts in the Industrial Areas of the North Slope of Alaska through a Long-term Regulatory Conflict Management Program

Author: Christopher Putnam

SLOTH BEAR

Human Sloth Bear Conflict is Highly Influencing to New Feeding Adaptation in Sloth Bears of Balasore, WI Division, Eastern India

Author: Prakash Mardaraj

HUMAN DIMENSIONS

POSTERS 130 – 141 SECOND LEVEL FOYER

Supplemental Feeding in Poor Food Years: Effectiveness for Reducing Bear-Caused Damages

Author: Klemen Jerina

The Timeline of a Tumultuous History: 150 Years of Bear Management in Yosemite National Park

Author: Caitlin Lee-Roney

Overcoming Cultural Resistance to Co-existing with Bears

Author: Gillian Sanders

ANDEAN BEAR

Andean Bear Conservation Alliance: How well are we doing?

Author: Isaac Goldstein

Andean Bear Conservation as Public Policy of the Metropolitan District Municipality of Quito, Ecuador

Author: Orfa Rodriguez

BLACK BEAR

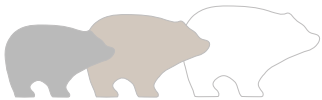
Using Lay Observers to Provide Qualitative Behavioral Data on Black Bears to Inform Park Management: the Pros and Cons of Monitoring via an Opportunistic Reporting System

Author: Anne Braaten

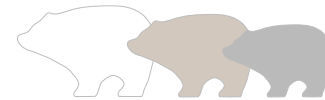
BROWN BEAR/GRIZZLY BEAR

Making the Most of Citizen Scientists in Brown Bear Studies in Canada's Rocky Mountain National Parks

*Author: Sarah Elmeligi**



POSTER PRESENTERS & SESSIONS



**Residents' Attitudes and Behaviors toward
Brown Bears and Brown Bear Management in
Sapporo in 2012 and 2014**

Author: Masato Kameda

**Explorations of the Natural and Cultural
Heritage of Brown Bears**

Author: John Kitchin

POLAR BEAR

**Inuvialuit and Nanuq: A Polar Bear Traditional
Knowledge Study**

Author: Patrick Gruben

**Using Inuit Knowledge to Understand Polar
Bear Ecology**

Author: Vicki Sahanatien

SLOTH BEAR

**Perception of Local Communities in
Conservation of Declining Sloth Bear
Population in Central India**

Author: Netrapal Singh Chauhan



**Over 4 decades of experience designing
and producing quality electronics for
bear research including GPS systems,
and conventional VHF telemetry.**



ERYTHROCYTES ANTIOXIDANT PROTECTION AND FATTY ACID COMPOSITION
IN BROWN BEARS IN CROATIA

Lana Vranković¹, Ivančica Delaš², Marina Horvatiček², Blanka Beer-Ljubić¹, Renata Laškaj³, Slaven Reljić¹, Đuro Huber¹, Zvonko Stojević¹, Jasna Aladrović¹

¹*Faculty of Veterinary Medicine, University of Zagreb, Zagreb, Croatia*

²*School of Medicine, University of Zagreb, Zagreb, Croatia*

³*University Hospital for Infectious Diseases, Zagreb, Croatia*

The red blood cell membranes are rich in fatty acids (FA), especially polyunsaturated FA (PUFA), so these cells are vulnerable to changes caused by the lack of PUFA. PUFA in phospholipids of erythrocyte membranes are particularly sensitive to oxidation, therefore antioxidative systems involved in the protection are of a special interest. The most important enzymatic antioxidants are superoxide dismutase (SOD) and glutathione peroxidase (GPx). The aim of this study was to determine the fatty acid composition of erythrocyte membranes as well as the level of erythrocytes' antioxidant protection measured as catalytic concentration of SOD and GPx and biological antioxidant potential (BAP) in brown bears in Croatia. The study was conducted on 10 blood samples collected during 2015 from brown bears in Croatia (7 animals: 2 F, 5 M; samples were collected during capturing and radio-collaring; 1 sample from a female injured after the vehicle collision and 2 samples from a male in captivity). From full blood, total lipids were extracted and after transmetilation the composition of FA methyl esters was determined by gas chromatography/mass spectrometry. The catalytic concentration of antioxidative enzymes was determined spectrophotometrically. We identified 21 FA in lipids isolated from the brown bear erythrocyte membranes (BBEM). They were dominated by PUFA (46.07±12.24%; the most common linoleic acid, C18:2), saturated FA constituted 37.33±9.70%, with palmitic acid (C16) as the most common, while monounsaturated FA constituted 16.60±10.45% (the most common oleic acid, *cis*C18:1). Antioxidant enzymes' activities in BBEM were as follows: GPx 14.78±2.00 U/10⁹ RBC, SOD 144.88±30.72 U/10⁹ RBC while BAP was 46.45±13.13 μmol/10⁹ RBC. This research is a preliminary study and future research should be focused on larger sample size to provide better health assessments and better understanding of the western most stable population of brown bears in Europe. Results could also contribute to better management of brown bear in Croatia in respect of securing the availability of natural foods and taking more care about the food given at feeding sites.