Interreg Co-funded by the European Union

Czechia – Poland

Geoecological Problems

CHANGING CLIMATE
in the Krkonoše/Karkonosze Mountains
21–23 September 2026, Špindlerův Mlýn, Krkonoše

Kick off Meeting of the Project "Strategická a koordinovaná správa KRNAP – KPN" (CZ.11.04.01/00/24_017/0000184)

Programme

Monday, 21 September 2026

10:00–12:00 Registration/Accommodation

12:00–13:30 Lunch

13:30–14:00 Meeting opening – welcome and opening speeches

14:00–16:00 Invited talks

14:00–14:30 *Krzysztof Migała:* Some Notes on Present Climate Change in the Karkonosze Mountains

14:30–15:00 *František Krahulec, Hana Skálová, Tomáš Herben, Věroslava Hadincová, and Sylvie Pecháčková:* What we Learned from Forty Years of Monitoring Permanent Grassland Areas

15:00–15:30 *Václav Treml:* Recent Dynamics of Treeline Ecotone Stands of *Picea abies* in the Krkonoše Mountains

15:30–16:00 *Bronisław Wojtuń:* How Does Climate Change Affect Vegetation in the Karkonosze?

16:00–16.30 Coffee break

16:30–17:45 Poster session

Poster Session I

Biodiversity Monitoring and Species Conservation

- *Dominik Zięcina, Beata Czyż, Jacinto Nicolas Flores Llerena, Diego Ivan Ordoñez Mazier, Archana Santhosh, Jacob Andrew Wilkerson, Magdalena Zagalska-*

Neubauer, and Sebastian Salata: Continuity or Decline? *Formica* (Hymenoptera: Formicidae) Populations in Karkonosze National Park after 50 Years
- *Magdalena Stanek:* Acoustic Monitoring of Bats in the Karkonosze Mountains: a Conceptual Framework
- *Jan Materna, Přemysl Janata:* Results of the Dipper Breeding Census in the Czech Part of the Krkonoše Mountains
- *Jakub Šimurda:* Spring Arrival of Birds in the Foothill of the Krkonoše Mountains in 1997–2026
- *Karolina Mikslová, Jitka Feřtová:* The Krkonoše–Jizera Mountains Population of the Black Grouse over Time
- *Anna Josefovičová:* Otter Population in KRNAP
- *Maja Grendel:* Microscopic Invertebrates on the Snow Fields in the Karkonosze National Park
- *Daniela Gluzová, Lucie Procházková:* Native Seed Multiplication Plot for Krkonoše Meadow Plant Species in the Monastery Garden, Vrchlabí
- *Ludmila Harčariková:* Seed Bank – Hope for Rare Species?
- *Marek Malicki:* In vitro propagation of *Rhododendron ferrugineum* – Supporting Ex Situ Conservation Under Climate Change

Poster Session II

Remote Sensing, Monitoring Technologies and Restoration

- *Vojtěch Vítek, Pavel Pipek, Michaela Vítková, Jan Čuda, Jiří Sádlo, Martin Hejda, Klára Pyšková, Eliška Hlaváčová, Lukáš Kysela, Marie Černá, Zdeňka Konopová, Anna Lučanová, Lucie Kupková, Markéta Potůčková, Lucie Červená, Jakub Lysák, Záboj Hrázský, Alex Šrollerů, Mojmír Polák, and Petr Pyšek:* CamAlien – Innovative Technology for Mapping Non-Native Species in Rugged Mountain Terrain
- *Adam Kulich, Lucie Kupková, Lucie Červená, Jakub Lysák, Záboj Hrázský, and Viera Horáková:* Monitoring Ramsar Peatbogs Vegetation Using UAV and Machine Learning – Lucie Kupková
- *Tereza Kaliská:* LiDAR-Based Quantification of Anthropogenic Impacts on Mountain Relief
- *Irena Kholová, Pavel Blažek:* Preservation and Restoration of the Gene Pool of Presumably Autochthonous Silver Fir (*Abies alba* Mill.) in the Krkonoše Mountains
- *Viera Horáková:* Restoration of Drained Forest Localities in the Krkonoše Mountains National Park
- *Markéta Potůčková, Alex Šrollerů, Lucie Kupková, Micha Silver, and Arnon Karnieli:* Soil Moisture Retrieval in Mountainous Grasslands Using Optical and SAR Satellite Data Combined with In Situ Measurements
- *Olha Kachalova, Michael Matějka, Jan Řehoř, Kamil Láska, Marie Novotná, David Tichopád, and Jana Müllerová:* Reconstruction of Long-Term Soil Moisture Dynamics in Subalpine Grasslands in the Jeseníky and Krkonoše Mountains Using Deep Learning with In Situ Validation

Poster Session III

Climate Change, Forest Dynamics and Mountain Processes

- *Ondřej Biemann:* Climate Anomalies Predict Overwintering Losses of Honey Bees in Czechia
- *Marek Błaś, Bartosz Jasiński, Elżbieta Myśkow, Aleksandra Słupianek, Hanna Ojrzyńska, Piotr Owczarek, and Magdalena Opała-Owczarek:* The Influence of

Topoclimatic Variability and Contemporary Climate Change on the Intra-Annual Growth Dynamics of Norway Spruce in the Western Sudetes
- *Hanna Ojrzyńska, Marek Błaś, Bartosz Jasiński, Elżbieta Myśkow, and Magdalena Opała-Owczarek:* Climatic Influence on Spruce Forest Conditions in the Western Sudetes in the Era of Climate Change
- *Natalia Pilguj, Adam Jaczewski, Joanna Wieczorek, Tomasz Strzyżewski, Bartłomiej Sobczyk, and Mariusz Figurski:* Application of Numerical Weather Prediction Models for the Sudetes Region
- *Marek Błaś, Hanna Ojrzyńska, and Marta Rauk:* Thermal Differentiation in the Western Sudetes within the 800–900 m a.s.l. Altitudinal Zone
- *Martin Erlebach, Veronika Květoňová Milan Viktořík, , Pavel Klapka::* Avalanche Activity as an Indicator of Climate Change: Evidence from the Krkonoše Mountains
- *Marek Kasprzak:* COLDSPOTS – Low Ground Temperatures in the Karkonosze Mountains
- *Andrzej Traczyk, Krzysztof Migała, and Marek Kasprzak:* Long-Term Variability and Projected Frost Conditions in the Karkonosze Mountains and Their Potential Geoenvironmental Impacts
- *Pavel Cudlín, Jan Purkyt, Ondřej Cudlín, Magda Edwards, Zdeňka Kovaříková, Vladana Procházková, and Václav Jansa:* Monitoring the Development of Natural Spruce Forests in the Krkonoše Mountains over the Past 30 Years
- *Grzegorz Urban, Ondřej Fatka, Stanislava Kliegrová, Michał K. Kowalewski, Henryk Marszałek, Dáša Richterová, Michał Rysiukiewicz, Jana Solánská, Ilona Zusková*: Groundwater in the Karkonosze and Jizera Mountains in the context of contemporary climate change

Poster Session IV

Landscape Evolution, Geodiversity and Human Impacts

- *Andrzej Traczyk, and David Krause:* Geomorphological Controls on the Genesis of Proto-Cirques in the Karkonosze Mountains
- *Krzysztof Parzóch:* Monitoring of High-Energy Geomorphological Processes in the Area of KPN
- *Jiří Bašta:* The Paradox of Berger's Death (1865)
- *Petra Šťastná:* Strážné Quarry – an Inconspicuous Gem of the Krkonoše Mountains
- *Paula Przygoda-Kuś, Mateusz Szczepańczyk, Aneta Urbanek, and Aleksandra M. Mirończuk:* The Impact of Land-Use on Microplastics Concentrations in Soil, with Particular Focus on Natura 2000 Sites and the Karkonosze National Park
- *Michal Skalka:* How Do We Count Visitors in the Krkonoše Mountains and Why?
- *René Jirmus, and Adam Stražovec:* Footprints in the Dark: Spatiotemporal Patterns of Nighttime Hikers
- *Marta Pyziołek, and Marek Kasprzak:* Pleistocene Glaciation of the Łomnica Valley: Identification of Glacial and Periglacial Landforms and Paleoglacier Reconstruction
- *Milan Viktořík:* Connectivity Models as a Key to the Preservation of Grassland Areas

18:00–19:00 Dinner and evening free program

Tuesday, 22 September 2026

7:00–8:15 Breakfast

Session I (08:15–10:00)

8:15–10:00 Vegetation Responses to Global Change and Innovative Monitoring

8:15–8:30 *Lucie Kupková, Markéta Potůčková, Lucie Červená, Jakub Lysák, Záboj Hrázský, Alex Šrollerů, Mojmír Polák, Michaela Vítková, Jan Čuda, Jiří Sádlo, Marie Černá, Eliška Hlaváčová, Lukáš Kysela, Vojtěch Vítek, and Petr Pyšek:* UAV and Deep Learning for Plant Invasions Monitoring

8:30–8:45 *Michaela Vítková, Jan Čuda, Jiří Sádlo, Martin Hejda, Pavel Pipek, Klára Pyšková, Eliška Hlaváčová, Vojtěch Vítek, Lukáš Kysela, Marie Černá, Zdeňka Konopová, Magdalena Lučanová, Lucie Kupková, Markéta Potůčková, Lucie Červená, Záboj Hrázský, Alex Šrollerů, Mojmír Polák, and Petr Pyšek:* Hotspots and Drivers of Alien Plant Species Upward Spread to the Arctic-Alpine Tundra

8:45–9:00 *Jana Müllerová, and Erik Šiffel:* Krkonoše Vegetation Patterns: Satellite Insights into Environmental Drivers under Climate Change

9:00–9:15 *Wojciech Pusz, and Katarzyna Patejuk:* Plant Health as Part of the Environmental Monitoring on the Example of the Karkonosze Mountains

9:15–9:30 *Stanislav Březina*: Changes in Vegetation of the Krkonoše Tundra on the Czech Side of the Krkonoše Mountains

9:30–9:45 *Martina Fabšičová, Marie Vymazalová, Přemysl Bobek, and Radim Hédl:* Subalpine Grasslands as Climate Change Refugia for Endangered Species? Insights from the Krkonoše and Jeseníky Mountains

9:45–10:00 *Marie Vymazalová, Martina Fabšičová, Martin Brtnický, Radim Hédl, and Marie Mrázková:* Plant-Soil Decoupling in Subalpine Grasslands: Microbial Nutrient Trapping Drives Plant Community Regeneration Following Climate Change-Induced Dieback

10:00–10:30 Coffee break

Session II (10:30–12:00)

10:30–12:00 The Past, Present and Future of the Krkonoše Mountains Landscape

10:30–10:45 *Josef Halda, and Ema Kestřánková:* Current Changes in the Krkonoše Tundra from a Lichenologist's

10:45–11:00 *Jakub Hruška, and Tomáš Chuman:* Critical Loads of Sulfur and Nutrient Nitrogen for Terrestrial Ecosystems and Their Exceedance by Current Atmospheric Deposition

11:00–11:15 *Helena Svitavská:* Regarding the Past: Mountain Tundra and the Upper Forest Limit History in the Krkonoše Mountains

11:15–11:30 *Michal Skalka:* How Do We Count Visitors in the Krkonoše Mountains and Why?

11:30–11:45 *Mateusz Rogowski, Martin Erlebach, Monika Rusztecka, and Veronika Květoňová:* Does Climate Variability Reshape Visitor Intensity in Protected Areas? A Case Study from the Krkonoše Mountains

11:45–12:00 *Jiří Bašta:* Visual Documents on Climate Change in the Collections of the Krkonoše Museum

12:00–13:30 Lunch

13:30–15:00 Workshop – Moderated Discussion on the KRNAP/KPN Management Strategy

15:20–18:20 Invited lecture – *Josef Elster, Anastasiia Kolomiiets, Oleksandr Bren, Eva Hejduková, Pavel Přibyl, Jana Kvíderová, Lenka Procházková, Ekaterina Pushkareva, Jaromír Lukavský, Linda Nedbalová, Jiří Liška, Vojtěch Bělohlav, Tomáš Jirout, Jan Tříska, Karel Hořejší, Burkhard Becker:* Global climate crisis in the Arctic; Impacts of Winter Thaws, Urbanization – Medium-sized Microalgae Farm

15:20–18:20 Excursion

19:30–23:30 Dinner, Discussion

Wednesday, 23 September 2026

7:00–8:45 Breakfast

Session III (08:45–10:15)

8:45–10:15 Mountain Fauna, Forests and Ecosystem Health

8:45–9:00 Perspective *Sebastian Salata, Dominik Zięcina, Beata Czyż, Jacinto N. Flores Llerena, Diego I. Ordoñez Mazier, Archana Santhosh, Jacob A. Wilkerson, and Magdalena Zagalska-Neubauer:* Survivor or Returnee? *Formica lugubris* in the Changing Climate of the Karkonosze Mountains

9:00–9:15 *Jakub Šimurda, and Roman Fuchs:* Forestry Plans as a Source of Environmental Data for the Analysis of Bird Community Composition

9:15–9:30 *Jan Materna, and Karolina Mikslová:* How Are the Birds of the Krkonoše Tundra Faring in the Face of Ongoing Climate Change?

9:30–9:45 *Paweł Sienkiewicz:* Ground Beetles (Coleoptera: Carabidae) in the Polish Part of the Karkonosze National Park – Current Status, Conservation Issues

9:45–10:00 *Radek Novotný, Věra Fadrhonsová, and Petr Fišer:* Soil Chemistry, Tree Nutrition and Crown Condition in Mountain Spruce Stands during the 1996–2025 Period

10:00–10:15 *Wojciech Kowalkowski, Piotr Robakowski, Marlena Baranowska, Monika Dering, Maria Hauke-Kowalska, Bartosz Bułaj, Radosław Jagiełło, Robert Korzeniewicz, Adrian Łukowski, Marcin Zadworny, and Władysław Barzdajn:* Restitution of Silver Fir in Sudety Mountains

10:15–10:45 Coffee break

Session IV (10:45–12:15)

10:45–12:15 Climate Change, Hydrology and Landscape Processes

10:45–11:00 *Paula Przygoda-Kuś, and Aleksandra M. Mirończuk:* Are Protected Areas Really Protected? Microplastics Concentrations in Soils within Natura 2000 Sites and the Karkonosze National Park Relative to Other Types of Land-Use

11:00–11:15 *Julie Schmidtová:* Winter Transformations: A Testimony of Highlanders about Climate Change

11:15–11:30 *Libor Kukačka:* Microclimatic Measurements in the Arctic-Alpine Tundra

11:30–11:45 *Adam Jaczewski, Natalia Pilguj, Joanna Wieczorek, Tomasz Strzyżewski, and Bartłomiej Sobczyk:* Applications of Weather and Climate Modelling to Improve Preparedness for Climate Change

11:45–12:00 *Milada Matoušková, Adam Bartůšek, Miroslav Šobr, Václava Šimandlová, and Matyáš Štregl:* Dynamics of Surface Water Biogeochemistry in Relation to Hydrological Extremes

12:00–12:15 *Lukáš Vlček, Jiří Kocum, Kristýna Falátková, and Václav Šípek:* Water Balance of Peatlands

12:15 End of the meeting