



World Conference on
**Forests for
Public Health**
Forest Welfare

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Virtual Conference

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Monday, 25 October 2021			
KST (Korea)	CET (Europe)	EDT (USA)	
19:00 - 20:50	12:00 - 13:50	06:00 - 07:50	Opening Ceremony of the Conference
19:00 - 19:05	12:00 - 12:05	06:00 - 06:05	Opening
19:05 - 19:10	12:05 - 12:10	06:05 - 06:10	Opening Address by the Co-Chair of the Organizing Committee <i>Chang Jae Lee, President of Korea Forest Welfare Institute</i>
19:10 - 19:30	12:10 - 12:30	06:10 - 06:30	Congratulatory Remarks <i>Byeong-Am Choi, Minister, Korea Forest Service (KFS)</i> <i>Mette Wilkie, Director, Forestry Division, Food and Agriculture Organization (FAO) of the UN</i> <i>Ricardo L. Calderon, Executive Director, Asian Forest Cooperation Organization (AFoCO)</i> <i>Christos Gallis, the International Union of Forest Research Organizations (IUFRO)</i>
19:30 - 20:10	12:30 - 13:10	06:30 - 07:10	Special Lecture 1: Re-Examination of Forest as the Space for Health Promotion after COVID-19 Pandemic Outbreak <i>Won Sop Shin, President of Korea Forest Therapy Forum, Former Minister of Korea Forest Service</i>
20:10 - 20:50	13:10 - 13:50	07:10 - 07:50	Special Lecture 2: The Fourth Industrial Revolution and Forest Welfare in terms of Brain Science. <i>Dr. Lee Si - Hyeong, Director, Serotonin Culture</i>



Tuesday, 26 October 2021			
KST (Korea)	CET (Europe)	EDT (USA)	
08:00 - 10:00	01:00 - 03:00	19:00 - 21:00	Session 1: Physiological Effects of Forest Therapy
08:00 - 08:25	01:00 - 01:25	19:00 - 19:25	Invited Lecture: From a Feeling to a Science-Beneficial effects of forest bathing/shinrin-yoku/forest therapy on human health <i>Qing Li, Md, PhD, Clinical Professor, Department of Rehabilitation Medicine, Nippon Medical School, Tokyo, Japan</i>
08:25 - 08:35	01:25 - 01:35	19:25 - 19:35	Q&A
08:35 - 08:45	01:35 - 01:45	19:35 - 19:45	PHYSIOLOGICAL AND PSYCHOLOGICAL ASSESSMENTS FOR THE ESTABLISHMENT OF EVIDENCE-BASED FOREST HEALING PROGRAMS <i>Yeji Choi, National Institute of Forest Science, Korea</i>
08:45 - 08:55	01:45 - 01:55	19:45 - 19:55	Ecological and ethnobotanical studies of medicinal plants in Indian Himalayan region (IHR) <i>Dharm Singh Meena, Narendranagar Forest Division, India</i>
08:55 - 09:05	01:55 - 02:05	19:55 - 20:05	Mediterranean forest and health: analysing the chemical interactions between forest chemistry and humans <i>Albert Bach, Environment And Human Health Laboratory, Spain</i>
09:05 - 09:15	02:05 - 02:15	20:05 - 20:15	EMERGING DISCOURSES AND OPERATIONAL MODELS OF FOREST MEDICINE AND HEALING IN SOUTH ASIA WITH A SPECIAL FOCUSING ON INDIA <i>Rajesh S Kumar, Member, Indian Forest Service(ifs), India</i>
09:15 - 09:25	02:15 - 02:25	20:15 - 20:25	Seasonal Effects of High-Altitude Forest Travel on Cardiovascular Function: An Overlooked Cardiovascular Risk of Forest Activity <i>Tsung-ming Tsao, National Taiwan University, Taiwan</i>
09:25 - 09:35	02:25 - 02:35	20:25 - 20:35	Comparative Study of the Physiological and psychological Effects of Forest and Urban Auditory Stimulus on Humans <i>Guangyu Wang, University Of British Columbia, Canada</i>
09:35 - 10:00	02:35 - 03:00	20:35 - 21:00	Discussion <i>(moderator : Wang Guangyu)</i>
10:00 - 10:30	03:00 - 03:30	21:00 - 21:30	Break
10:30 - 12:30	03:30 - 05:30	21:30 - 23:30	Session 2: Industrialization of Forest Welfare
10:30 - 10:55	03:30 - 03:55	21:30 - 21:55	Invited Lecture: The need for international standardization in the area of Forest Therapy : Lesson from Travel & Tourism Sector <i>Mihee Kang PhD, Director Asia-Pacific GSTC trainer & destination professor Global Sustainable Tourism Council, Republic of Korea</i>
10:55 - 11:05	03:55 - 04:05	21:55 - 22:05	Q&A
11:05 - 11:15	04:05 - 04:15	22:05 - 22:15	Bringing forest welfare into Virtual Reality using LiDAR scans of real forests <i>Lukáš Hejtmánek, Czech University of Life Sciences Prague, Czech Republic</i>
11:15 - 11:25	04:15 - 04:25	22:15 - 22:25	Forest pest surveillance to protect Africa's forest resources <i>Brett Hurley, FABI, University of Pretoria, South Africa</i>
11:25 - 11:35	04:25 - 04:35	22:25 - 22:35	DEVELOPING A FOREST-BASED TOURISM PRODUCT NATURAL SELFNESS <i>Gorana Isailovic, Forest Therapy See, Srebiz</i>
11:35 - 11:45	04:35 - 04:45	22:35 - 22:45	CHILDHOOD BIOTOPES AND BIOPHILIC DESIGN: TOOLS FOR CREATING HEALTH-PROMOTING URBAN GREEN SPACE/FORESTS <i>Robin Moore, Nc State University, United States</i>
11:45 - 11:55	04:45 - 04:55	22:45 - 22:55	Public engagement with forest post-COVID-19 in the member countries of the Asian Forest Cooperation Organization <i>Jimyung Kim, Asian Forest Cooperation Organization, Korea</i>

11:55 - 12:05	04:55 - 05:05	22:55 - 23:05	Effect of forest welfare service on overcoming COVID-19 depression. (For Filipino college students participation in online classes) <i>Nanyoung Paek, Korea Forest Welfare Innstitute, Korea</i>
12:05 - 12:15	05:05 - 05:15	23:05 - 23:15	CAN I EARN A LIVING IN FOREST-BASED CARE? EMERGING MARKET DEVELOPMENTS IN EUROPE Urban Auditory Stimulus on Humans <i>Cecilia Fraccaroli, European Forest Institute, Germany</i>
12:15 - 12:30	05:15 - 05:30	23:15 - 23:30	Discussion <i>(moderator : Christos Gallis)</i>



Wednesday, 27 October 2021			
KST (Korea)	CET (Europe)	EDT (USA)	
19:00 - 21:10	12:00 - 14:10	06:00 - 08:10	Session 3: Psychological Effects of Forest Therapy
19:00 - 19:25	12:00 - 12:25	06:00 - 06:25	Invited Lecture: Nature and human health – pathways, mechanism, and policy impacts <i>Dr. Matilda van den Bosch (MD, PhD), Associated Researcher at the Barcelona Institute for Global Health</i>
19:25 - 19:35	12:25 - 12:35	06:25 - 06:35	Q&A
19:35 - 19:45	12:35 - 12:45	06:35 - 06:45	IMPACT OF CHANGED USE OF GREENSPACE AMIDST COVID-19 PANDEMIC ON DEPRESSION AND ANXIETY <i>Seulkee Heo, Yale University, US</i>
19:45 - 19:55	12:45 - 12:55	06:45 - 06:55	INFLUENCE OF COVID-19 PANDEMIC ON CHANGE IN FOREST PERCEPTION AND VARIABILITY IN FOREST VISIT RATES – A SLOVAK NATIONWIDE SURVEY <i>Magdalena Pichlerova, Technical University of Zvolen, Slovakia</i>
19:55 - 20:05	12:55 - 13:05	06:55 - 07:05	NATURE IMAGES IN CHEMOTHERAPY SYMPTOM MANAGEMENT: RANDOMIZED CLINICAL TRIAL <i>Giulia Catissi, Hospital Israelita Albert Einstein, Brazil</i>
20:05 - 20:15	13:05 - 13:15	07:05 - 07:15	EFFECT OF EXPOSURE TO PHOTOGRAPHS OF OLD-GROWTH AND SECONDARY FORESTS ON MOOD AND ATTENTION <i>Martin Hůla, Czech University Of Life Sciences Prague, Czech Republic</i>
20:15 - 20:25	13:15 - 13:25	07:15 - 07:25	Psychological health benefits of a structured forest therapy program for children and adolescents with mental disorders: A pilot study <i>Namyun Kil, University of Wisconsin-La Crosse, US</i>
20:25 - 20:35	13:25 - 13:35	07:25 - 07:35	Emergency department visits for mental disorders and the built environment: residential greenspace and historical redlining <i>Huaqing Wang, Texas A&M University, US</i>
20:35 - 20:45	13:35 - 13:45	07:35 - 07:45	Forest therapy: Effects of forest-based intervention programs for military personnel with stress <i>Jeongwon Lee, Fowi, Korea</i>
20:45 - 20:55	13:45 - 13:55	07:45 - 07:55	The Influence of Forest Activities in a University Campus Forest on Student's Psychological Effects <i>JINGUN KIM, Korea Forest Therapy Forum, Korea</i>
20:55 - 21:10	13:55 - 14:10	07:55 - 08:10	Discussion <i>(moderator : Dr. Matilda van den Bosch)</i>
21:10 - 21:30	14:10 - 14:30	08:10 - 08:30	Break
21:30 - 23:30	14:30 - 16:30	08:30 - 10:30	Session 4: Training experts in the field of Forest Welfare
21:30 - 21:55	14:30 - 14:55	08:30 - 08:55	Invited Lecture: A standard Sequence of Invitations for Guided Forest Therapy Walks: the ANFT Model <i>M. Amos Clifford MA, Founder/CEO, Association of Nature and Forest Therapy Guides and Programs</i>
21:55 - 22:05	14:55 - 15:05	08:55 - 09:05	Q&A
22:05 - 22:15	15:05 - 15:15	09:05 - 09:15	PERSPECTIVES TOWARDS INCORPORATING NATURE CONNECTION INTO LIFESTYLE COACHING: A QUALITATIVE STUDY AMONG DUTCH LIFESTYLE COACHES <i>Josina Hennes, Maastricht University, Germany</i>
22:15 - 22:25	15:15 - 15:25	09:15 - 09:25	PROFESSIONAL TRAINING IN FOREST MEDICINE FOR HEALTH PROMOTION AND PREVENTION IN GERMANY <i>Gisela Immich, M.Sc., Chair Of Public Health And Health Services Research, Ludwig-maximilians-university, Germany</i>
22:25 - 22:35	15:25 - 15:35	09:25 - 09:35	Ecopsychology in action - 5 panels accompany hikers to experience the encounter with the forest in a more profound way on Monte di Brianza (Lecco-Italy). <i>Marcella Danon, International Ecopsychology Society, Italy</i>

22:35 - 22:45	15:35 - 15:45	09:35 - 09:45	AN INNOVATIVE NATURE VOCATIONAL TRAINING PROGRAMME INVOLVING LONG TERM SWEDISH UNEMPLOYED AND MIGRANTS: IMPACTS ON HEALTH AND WELLBEING <i>Anna María Pálsdóttir, Swedish Univ. Of Agricultural Sciences, Sweden</i>
22:45 - 22:55	15:45 - 15:55	09:45 - 09:55	RE-GREENING DEGRADED LANDS TOWARDS CONSERVING SPECIES AND IMPROVING PUBLIC HEALTH: ESTABLISHMENT OF 'LIVING ISLANDS' AT THE LOCAL LEVEL IN SRI LANKA <i>Indi Akurugoda, University Of Ruhuna, Sri Lanka</i>
22:55 - 23:05	15:55 - 16:05	09:55 - 10:05	Camellia forests Management in Health Belief Model <i>Ai Tashiro, The University Of Tokushima, Japan</i>
23:05 - 23:15	16:05 - 16:15	10:05 - 10:15	We All Belong To One World: The transformative power of rites of passage in nature. <i>Michael Bodkin, M.S., MFT, Rite of Passage, Inc, US</i>
23:15 - 23:30	16:15 - 16:30	10:15 - 10:30	Discussion <i>(moderator : M. Amos Clifford MA)</i>



Thursday, 28 October 2021			
KST (Korea)	CET (Europe)	EDT (USA)	
08:00 - 10:00	01:00 - 03:00	19:00 - 21:00	Session 5: Policy and Traditional Knowledge related to forest welfare of each country
08:00 - 08:25	01:00 - 01:25	19:00 - 19:25	Invited Lecture: Forest Therapy: Developing Connections Among Ecosystem and Human Diversity with Forest and Community Health <i>Tamberly Conway PhD, Founder/CEO, Conservation Conexions</i>
08:25 - 08:35	01:25 - 01:35	19:25 - 19:35	Q&A
08:35 - 08:45	01:35 - 01:45	19:35 - 19:45	Introduction of the “Forest Service Industry” in Japan: a strategy to use forest space for corporate health management <i>Hiroko Ochiai, National Hospital Organization Tokyo Medical Center, Japan</i>
08:45 - 08:55	01:45 - 01:55	19:45 - 19:55	Contributions of community forestry to COVID-19 response and recovery in seven Asian countries <i>Ronnakorn Triraganon, Recofc, Thailand</i>
08:55 - 09:05	01:55 - 02:05	19:55 - 20:05	THE PLETHORA HERITAGE OF BIODIVERSITY AND TRADITIONAL KNOWLEDGE OF WESTERN INDIA: THE ANCIENT ARAVALLI RANGE <i>Alok Raj, Central University of Rajasthan, India</i>
09:05 - 09:15	02:05 - 02:15	20:05 - 20:15	THE IMPORTANCE OF CULTURAL ECOSYSTEM SERVICES BY COMPARISON OF DIACHRONIC CHANGE BET’N UTILIZED (GOTJAWAL, LAVA FORESTS) AND CONSERVED (MT. GARIWANGSAN) REGIONS IN SOUTH KOREA <i>Chan Ryul Park, National Institute Of Forest Science, Korea</i>
09:15 - 09:25	02:15 - 02:25	20:15 - 20:25	A study on the forest policy for human health and well-being: Focusing on the case of forest welfare policy in Korea <i>Eun Jeong Lee, Forest Welfare Institute, Korea</i>
09:25 - 09:40	02:25 - 02:40	20:25 - 20:40	Discussion <i>(moderator : Tamberly Conway PhD)</i>
09:40 - 10:00	02:40 - 03:00	20:40 - 21:00	Break
10:00 - 11:00	03:00 - 04:00	21:00 - 22:00	E-Poster and Q&A Session <i>(The detailed e-poster session programme can be found on page 25)</i>
11:00 - 11:30	04:00 - 04:30	22:00 - 22:30	Closing Ceremony of the Conference
11:00 - 11:05	04:00 - 04:05	22:00 - 22:05	Collective Action <i>Initiative on the Establishment of Expert Group</i> <i>Sooyeon Laura Jin, Forestry Officer, Food and Agriculture Organization of the UN (FAO)</i>
11:05 - 11:30	04:05 - 04:30	22:05 - 22:30	Closing Address <i>Won Sop Shin, President of Korea Forest Therapy Forum, Former Minister of Korea Forest Service</i>



INFLUENCE OF COVID-19 PANDEMIC ON CHANGE IN FOREST PERCEPTION AND VARIABILITY IN FOREST VISIT RATES – A SLOVAK NATIONWIDE SURVEY

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OBJECTIVE: The topic of the positive impact of nature on human health and well-being has been addressed by many scientific studies since the 1990s. The benefits of visiting the forest gained in importance recently, at the outbreak of COVID-19 pandemic and its accompanying restrictions. In this context, a Slovak nationwide survey was carried out with the main objective of casting light on possible changes in the perception of the Slovak residents towards nature and forest as one of the coping mechanisms or behavioral response to the discomfort and severe restrictions generated from Coronavirus disease (COVID-19). Visitor numbers were also monitored on a hiking trail leading through a popular mountain forest located in the Poľana Biosphere Reserve, central Slovakia, to capture presumed effect of the COVID-19-related measures on forest visit numbers (FVN).

DESIGN AND METHOD: To test hypothesized change in FVN and perception of nature and forests before and after the onset of the COVID-19 pandemic, a nationwide survey on a statistically representative sample of 1000 respondents was conducted. The survey was distributed digitally to all age, sex, and residents' segments. Automated monitoring of visitors on an accessible hiking trail was carried out using the pyroelectric Linetop sensors, responding to the thermal energy of moving humans.

RESULTS: The nationwide survey results showed that the availability of forests was the primary factor influencing the number of forest visits before and during the COVID-19 pandemic. In terms of the impact on forest attendance, distance to the nearest forest and age were identified as the key factors. FVN increase occurred in young people (16-29), while there was FVN decrease in elderly population (> 62 years) linked with perceived risk avoidance. Interestingly, individuals on parental leave and students scored the highest FVN increase. In parallel to that, visitor numbers recorded in the Poľana UNESCO Biosphere Reserve corresponded well with the Google COVID-19 Mobility Report showing +190% increase in number of visitors to parks and outdoor spaces during summer, compared to numbers before the pandemic outbreak. Within the week, Saturday had the highest average visit numbers, while working days showed 3.6 times lower visits compared to weekends.

CONCLUSIONS: Results show the strongest response in terms of FVN after the onset of COVID-19 pandemic occurred among the most vulnerable population segments – young individuals, retired people, people on parental leave. Availability of and distance to the nearest forest was a crucial factor affecting FVN during the period of restricted freedom of movement. Associated with FVN dynamics were changes in forest perception, stressing intense feelings of freedom and gratitude in individuals who visited forests more frequently during COVID-19 pandemics. Positive forest effect on subjective well-being and stress reduction appears to be at least partly mediated by olfactory and audio characteristics typical of forest environment. Presented results quantitatively document the extraordinary value of public health and recreation ecosystem services of forests.