ESP 11 World Conference

"From global to local ecosystem services: pathways to Nature-based Solutions inspired from Down Under"

23-27 June 2025 | Darwin, Australia

SESSION DESCRIPTION

ID: B7

Harnessing local practices to tackle global challenges in high-latitude and high-altitude ecosystems

Hosts:

	Name	Organisation	E-mail
Host:	Miguel Villoslada	University of Eastern Finland	miguevil@uef.fi
Co-host(s):	Benjamin Burkhard	Leibniz University Hannover	burkhardphygeo.uni-hannover.de

Abstract:

The recently created ESP Biome Working Group 7 on Tundras aspires to become a platform for knowledge sharing and co-production in relation to tundra, arctic, alpine, and snow-related ecosystem services, while advocating for socio-ecological perspectives on tundras through transdisciplinary integrative research.

In this session, we seek to address the major challenges currently faced by high-latitude and high-altitude ecosystems, such as Arctic tundras and Alpine regions. These areas are highly vulnerable to climate change and human activities' impacts, yet they hold significant ecological and socio-cultural importance. While Nature-based Solution (NbS) in these regions offer a promising strategy for climate change adaptation, their effective implementation faces several challenges such as the unique needs and complexities of specific ecosystems and their rapidly changing conditions.

The session aims at examining how lessons from tundra and alpine ecosystems—particularly the integration of Indigenous people knowledge, traditional management practices, and ecosystem services research—can contribute to pathways toward the design and implementation of Nature based Solutions (NbS) for nature restoration, conservation and sustainably use. We welcome topics dealing with strategies to address ecosystem fragmentation, loss of biodiversity, land use conflicts, climate resilience, and sustainable livelihoods, while emphasizing co-production of knowledge and transdisciplinary approaches.

Goals and objectives of the session:

1. Map the current state-of-the-art regarding NbS implementation in high-latitude and high-altitude ecosystems.

2. Present novel approaches to mapping, modeling, and assessing ecosystem condition and services in high-latitude and high-altitude ecosystems.

Planned output / Deliverables:

A joint open access journal publication or a journal special issue (depending upon the content of presentations).

Session format:

Standard presentations and World Café. Time needed: 1-2 session slots.

Voluntary contributions accepted:

Yes, I allow any abstract to be submitted to my session for review

Related to ESP Working Group:

BWG 7 – Tundras