



UPDATES

Congratulations to [Maryam Bayatvarkeshi](#) of the BERA Ecohydrology Team for successfully defending her PhD thesis. Dr Bayatvarkeshi is staying on as a BERA postdoctoral fellow!

BERA researchers are busy on the conference and workshop trail this fall. A number of them are attending the [Alberta Society of Professional Biologists \(ASPB\)](#) conference in Banff November 26-28, including [Colleen Sutheimer](#), who will be presenting *From Prioritization to Practice: Restoring Fragmented Boreal Forests Within Woodland Caribou Habitat*. Come look us up if you're going to be there!

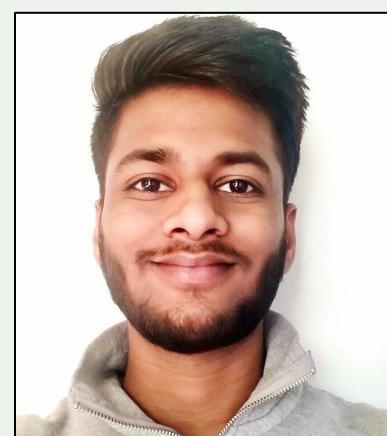
How Best to do an Establishment Survey, You Ask?



BERA researchers are fresh back from a successful 2025 field season and are hard at work processing data. Among the projects we're working on is a collaboration with Cenovus Energy and ABMI that compares the accuracy, cost, and scalability of visual (aerial sketch mapping and softcopy interpretation) and digital (machine learning and digital analysis) approaches to reconnaissance establishment surveys. Stand by for results!

RESEARCHER PROFILE

[Apoory Saini](#) is a PhD student at the University of Alberta and a member of BERA's Humans and Wildlife team. He obtained his B.Sc. from the University of Delhi and his M.Sc. from the University of Aberdeen. Apoorv's research investigates how anthropogenic activities, such as recreational use and human-generated noise, affect wildlife. In his free time, Apoorv loves spending time outdoors photographing wildlife and exploring nature. He also enjoys playing soccer, cricket, and badminton.



RESEARCH HIGHLIGHTS (1 OF 2)

Is peatland plant diversity recovering on seismic lines?

Alberta's boreal peatlands are fragmented by a dense web of linear features, like seismic lines. Vegetation regrowth is often stunted in peatlands, which can have ecological consequences across the region—a key conservation challenge. Restoration treatments like inverted mounding aim to restore microtopography and help vegetation regrow on lines, but their effectiveness at restoring plant diversity in peatlands remains unclear.

To better understand how peatlands are recovering, we compared understory plant diversity across treated and untreated seismic lines with undisturbed sites in bogs and fens.

We measured three types of diversity:



Taxonomic



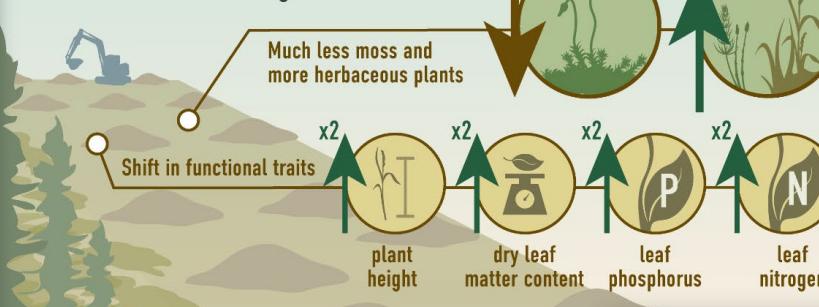
Phylogenetic



Functional

What we found:

Treated lines in both bogs and fens had:



GOUD ET AL., 2025
DOI: 10.1139/CJB-2024-0041
INFOGRAPHIC BY FUSE CONSULTING

Compared to
undisturbed areas

Plant diversity in bogs and fens responded differently on seismic lines:

Bogs



treated lines



highest species richness
and functional diversity

Fens



undisturbed areas



highest diversity

untreated lines



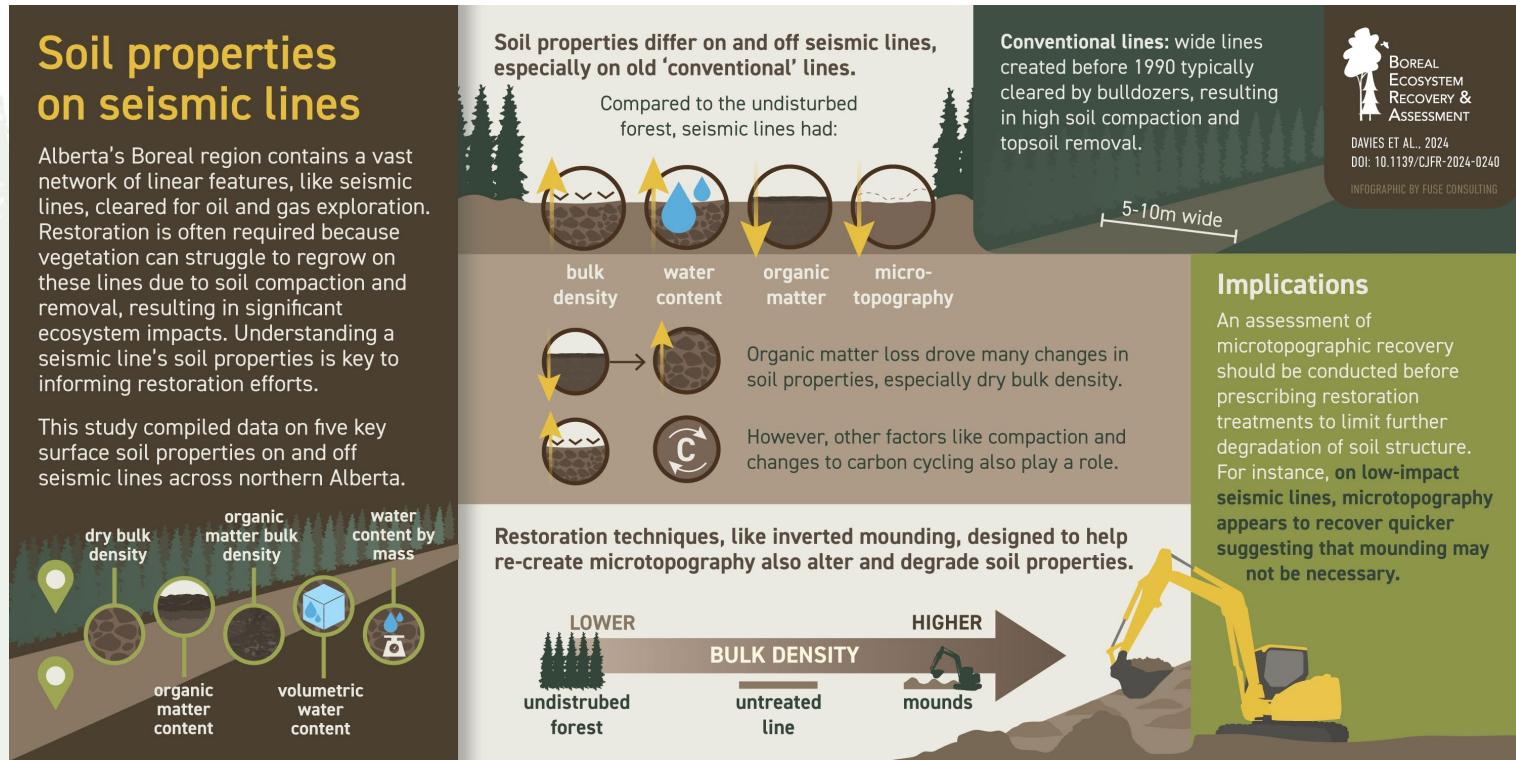
lowest diversity

Implications

- Peatland restoration assessment and strategies should be **ecosystem-specific** and **consider multiple levels of plant diversity**.
- Mounding may increase some types of plant diversity, but **treated lines are becoming less like undisturbed peatlands**.
- **Long-term monitoring is required** to refine restoration strategies and understand their effectiveness at recovering boreal peatlands.

Read the [peer-reviewed article](#) behind this research or download a [PDF copy of the infographic](#).

RESEARCH HIGHLIGHTS (2 OF 2)



Read the [peer-reviewed article](#) behind this research or download a [PDF copy of the infographic](#).